Pre-Solicitation Conference

Unmanned Aircraft Systems/Intelligence, Surveillance & Reconnaissance (UAS/ISR) Services

Southern Maryland Higher Education Center
Airport Rd, California MD
12-14 April 2011

Opening Remarks & Introductions/Agenda

Ms. Vicki Fuhrmann
Contracting Officer

Agenda – 12 April 2011

Registration & One-on-One Confirmation	0730-0800
Opening Remarks & Introductions/Agenda	0800-0815
PMA263 Overarching Perspective	0815-0830
Acquisition Summary/RFP Structure/Task Orders	0830-0945
BREAK	0945-1000
Source Selection Overview / Sect L & M	1000-1200
LUNCH	1200-1300
Technical, PBWS & Section L	
Technical/Systems Capability	1300-1400
Task Order Capabilities	1400-1410
Small Business Utilization	1410-1415
Price	1415-1430
BREAK	1430-1445
Air Worthiness	1500-1530
Cross Domain Solution/Information Assurance	1530-1600
Closing Remarks	1600-1610
Questions/Answers	1610-1630

Purpose

- Discuss Draft RFP N00019-10-R-0054 with Industry and receive comments to assure clear understanding of solicitation requirements

Welcome

- All Attendees sign in
- Southern Maryland Higher Education Center – Facility
- Please silence cell phones
- NAVAIR UAS ISR Services Team
- Industry Attendees

Disclaimer

The remarks today of Government officials involved in the Unmanned Aerial System (UAS) Intelligence Surveillance and Reconnaissance (ISR) Services procurement should not be considered a guarantee of the Government's course of action. The information shared today reflects current Government intentions and is subject to change. The formal solicitation is the only document that should be relied upon in determining the Government's requirements.

Ground Rules

- Unclassified brief
- Please submit questions in writing, forms available if needed
- A short Q&A session will be addressed at end of each section of the brief. A consolidated Q&A session will be held at end of day, time permitting.
- Additional written questions may be submitted to the Contracting Officer until 20 Apr 2011, 5:00 pm EDST
- Pre-Solicitation Conference Slides and questions/answers will be posted with Draft RFP
- Draft RFP available at www.navair.navy.mil/doing_business/open_solicitations
- No government provided copies of Draft RFP available at Pre-solicitation Conference

PMA263 Overarching Perspective

Deputy PMA-263
Program Manager

ISR Services Acquisition

- Addressing Urgent Ongoing Requirements for ISR
  - Afghanistan (OEF)
  - Iraq (OND)
  - Sea-Based Support (OEF/OCO)
- ISR Services is not a Program of Record
  - Funded via OCO
  - No development
  - Buying sensor data vice hardware/systems (CO/CO)
- Sensor data is in direct support of Warfighters in theater

Requirements

- Unmanned Aircraft System (UAS) Intelligence, Surveillance, and Reconnaissance (ISR) services in support of Department of Defense (DOD) and Other Government Agencies' (OGA) domestic and Overseas Contingency Operations (OCO), as well as potential Coalition military Foreign Military Sales (FMS) case requests.

- Provide worldwide support for Land-Based and Sea-Based operations
  - Two Separate Performance Based Work Statements (PBWSs) have therefore been established
  - Largely common, but with some very significant differences, driven by operational needs and user-requirements

- Mission areas include Sea Surveillance and Control; Anti-Piracy; Visit, Board, Search, and Seizure; Insurgent Suppression; Coastal mapping; Combat Search and Rescue/Search and Rescue

Services

- Product provided under UAS ISR Services is Sensor Data
  - Basic Technical Requirements provided in MAC PBWSs
  - Task Orders provide requirements regarding Level of Support, Schedule, and Location
- Contractor responsible for resources to produce Sensor Data, such as:
  - Trained Personnel
  - Non-developmental UAS equipment
  - Certifications
  - Operation & Maintenance
  - Spares/product support
- Direct support of combat land-based and/or sea-based missions providing around the clock imagery and other sensor capability in support of ISR missions.
- The contractor will provide normal and surge, day and night, 24 hours a day, seven days a week, ISR Services.
- Contractor personnel are not part of the intelligence or kill chain

Program Goals

- Provide flexible and agile response to Warfighter needs
- Enable gathering of actionable intelligence
- Maintain continuous ISR capability
- Effectively and efficiently, satisfy multiple, simultaneous land and sea-based CONUS and OCONUS missions
- Form effective, cooperative partnerships with Industry in direct support of forward deployed Warfighters
- NO BREAK IN SERVICE TO WARFIGHTER

Acquisition Summary/ RFP Structure/Task Orders

Contracting Officer

Acquisition Summary

- Full and Open Competition
- Performance Based Requirement
  - Includes Performance Metrics
  - Performance Incentive H-1 “Reduced Payments”
- Multiple Award Contracts IDIQ
  - $874M Ceiling to be shared among all awardees
  - $100K Minimum Guarantee
  - Firm Fixed Price Task Orders
  - 5 Year Ordering Period
  - Estimated 2-4 Contracts
- Two requirements, Land-Based and Sea-Based, each with its own PBWS
  - Contractors may be selected for Land-Based, Sea-Based, or both at the MAC level
  - Land-Based and Sea-Based will be evaluated separately

Acquisition Summary

- Task Orders
  - Contractors will only be eligible for Task Orders related to the PBWS for which they are selected
  - Firm Fixed Priced
  - All prices are on the Task Order Line Items, not IDIQ Contract Line Items
  - Tasks Order will be competed among eligible awardees unless FAR 16.505 (B) (2) “Exception to Fair Opportunity” applies

Exceptions to Fair Opportunity

- FAR 15.605 (b)(2) Exceptions to the fair opportunity process.
  - (i) The agency need for the supplies or services is so urgent that providing a fair opportunity would result in unacceptable delays.
  - (ii) Only one awardee is capable of providing the supplies or services required at the level of quality required because the supplies or services ordered are unique or highly specialized.
  - (iii) The order must be issued on a sole-source basis in the interest of economy and efficiency because it is a logical follow-on to an order already issued under the contract, provided that all awardees were given a fair opportunity to be considered for the original order.
  - (iv) It is necessary to place an order to satisfy a minimum guarantee.

IDIQ Contract
Section B – Supplies or Services

CLIN	DESCRIPTION
0001	ISR Sea-Based Pre-Deployment Support
0002	ISR Sea-Based Deployment Support
0003	ISR Sea-Based Post Deployment Support
0004	ISR Sea-Based Familiarization Training
0005	ISR Land-Based Pre-Deployment Support
0006	ISR Land-Based Deployment Support
0007	ISR Land-Based Post Deployment Support
0008	ISR Land-Based Familiarization Training
0009	NAVAIR Category 3 Flight Clearance
0010	Data

IDIQ Contract-Section C Descriptions and Specifications

- 0001 – Sea-Based Pre-deployment (Sea-Based PBWS 4.1)
  - Certifications/qualifications
  - Personnel Considerations
  - Authority to Operate (ATO)
- 0002 – Sea-Based Deployment (Sea-Based PBWS 4.2)
  - Monthly levels of support
  - Mission Reliability Rate 95%
- 0003 – Sea-Based Post-deployment (Sea-Based PBWS 4.3)
  - Disassembly and shipment of contractor equipment
  - Contractor data-storage media turned over to Government
- 0004 – Sea-Based Familiarization Training
  - No Sea-Based PBWS
  - To be identified in Task Order if required

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IDIQ Contract-Section C Descriptions and Specifications

- 0005 – Land-Based Pre-deployment (Land-Based PBWS 4.1)
  - Certifications/qualifications
  - Personnel Considerations
  - Authority to Operate (ATO)
- 0006 – Land-Based Deployment (Land-Based PBWS 4.2)
  - Monthly levels of support
  - Mission Reliability Rate 95%
- 0007 – Land-Based Post-deployment (Land-Based PBWS 4.3)
  - Disassembly and shipment of contractor equipment
  - Contractor data-storage media turned over to Government
- 0008 – Land-Based Familiarization Training (Land-Based PBWS 4.9) (mislabeled paragraph in DRAFT PBWS)
  - Defined in Task Order if required

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IDIQ Contract-Section C Descriptions and Specifications

- 0009 – Category 3 Flight Clearance (Sea-Based & Land-Based PBWS 4.8)
  - One time Task Order to each successful MAC awardee unless already has approved NAVAIR Cat 3 Flight Clearance for the proposed system

- 0010 – Data
  - Exhibit A CDRLs
  - Each Task Order will identify which CDRLs for that Task Order

Draft RFP Page 5

Task Orders

- Initial Task Orders Included in Solicitation
  - Three Task Orders included in Source Selection Evaluation
    - » Task Order One: Sea-Based DDG Arleigh Burke Class Destroyer
    - » Task Order Two: USMC Land Base 3 Afghanistan
    - » Task Order Three: USAF Land-Based Detachments 1 & 3 Afghanistan and Iraq
  - May be awarded up to 180 days after MAC award based on availability of funding
  - One Task Order Not Included in Source Selection Evaluation
    - » Task Order Four: Category 3 Flight Clearance
    - » Will be awarded to each successful Offeror selected to receive an IDIQ contract in response to this solicitation at a Firm-Fixed price of $100K, unless an approved NAVAIR Category 3 Flight Clearance is already in existence.

- Future Task Orders
  - Future Task Orders will be competed among applicable MAC Awardees, unless exception to Fair Opportunity (FAR 16.505 (b) (2))
  - Task Order Selection Procedures to be Identified in individual Task Order Solicitations, Best Value Source Selection

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Task Order One
Sea-Based DDG Arleigh Burke Class

- DDG Arleigh Burke Class Ships
- Base Ship plus six (6) Option Ships
- Individual Ship Deployment Period
  - Seven (7) Months
  - Option for one (1) additional month
- Level of Monthly Sensor Data Support
  - Up to 300 Hours per Month
  - Option to increase to 301 – 600 Hours per Month

Draft RFP Attachment (4)

Task Order One
Sea-Based DDG Arleigh Burke Class

- Contract Line Items (CLINs) grouped by ship
  - Ship “A” (Base Ship) - CLINs 0001-0010, Option CLINs 0012, 0102, & 0112
  - Ship “B” - Option CLINs 1001-1010, 1012, 1102, & 1112
  - Ship “C” - Option CLINs 2001-2010, 2012, 2102, & 2112
  - Ship “D” - Option CLINs 3001-3010, 3012, 3102, & 3112
  - Ship “E” - Option CLINs 4001-4010, 4012, 4102, & 4112
  - Ship “F” - Option CLINs 5001-5010, 5012, 5102, & 5112
  - Ship “G” - Option CLINs 6001-6010, 6012, 6102, & 6112

Draft RFP Attachment (4)

Task Order One
Sea-Based DDG Arleigh Burke Class

Item	Sub Item	Supplies/Services	Qty	Unit
0001		ISR Ship A Sea-Based Pre-Deployment Support of CLIN 0002		
	0001AA	Ship Check Support	1	Lot
	0001AB	Kit A and B Installation Support	1	Lot
	0001AC	Underway System and C2X Underway System Checks	1	Lot
0002		Ship A Sea-Based Deployment up to 300 hrs per month	7	Mo
0003		Ship A Sea-Based Post Deployment De-install	1	Lot
0010		Ship A Data		
Option 0012		Ship A Sea-Based Deployment up to 300 hrs per month	1	Mo
Option 0102		Ship A Sea-Based Deployment increased support 301-600 hrs per month	7	Mo
Option 0112		Ship A Sea-Based Deployment increased support 301-600 hrs per month	1	Mo

CLINs for Ships B, C, D, E, F, & G repeat this structure, only the first digit changes

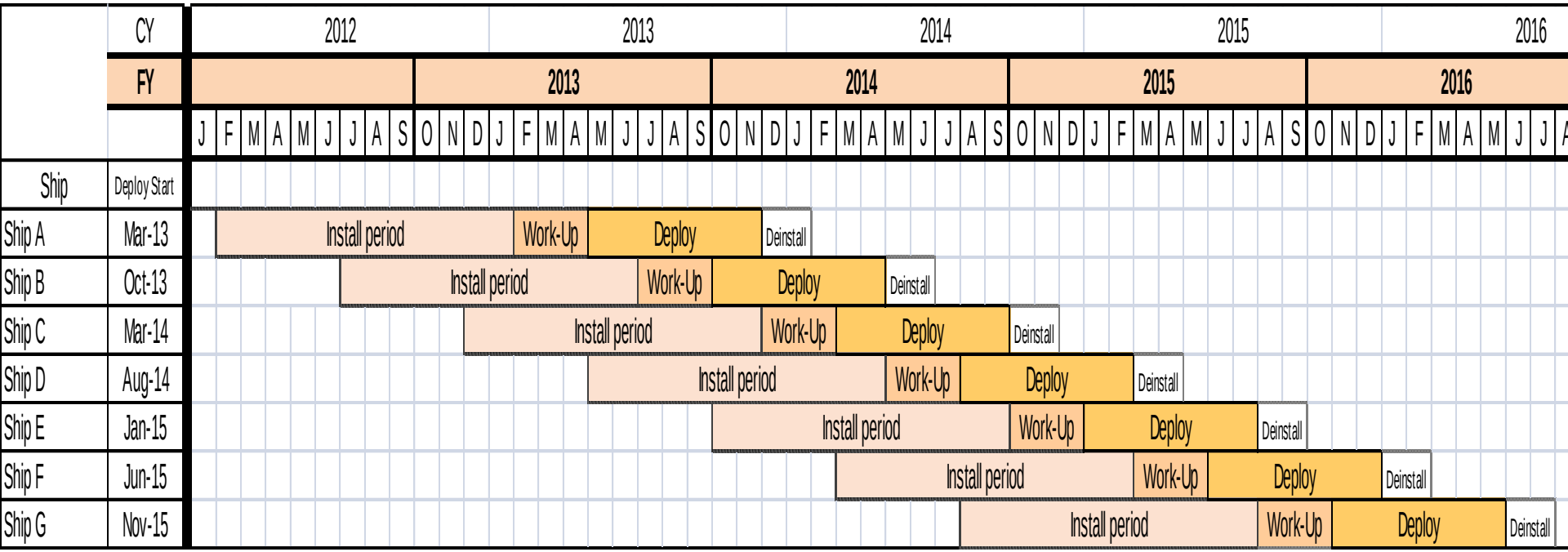
Task Order One Section C
Ship A

- 0001 Pre-Deployment
  - Ship Check
  - Kit Install
    - » A Kit
    - » B Kit
  - Underway Periods
    - » Underway Systems Check
    - » C2X Underway Systems Check
- 0002, 0012, 0102, & 0112 Deployment
  - Monthly Level of support
  - Commences when ship is underway to deploy, and ends when ship returns
- 0003 Post Deployment
  - When ship returns

Task Order One Estimated Schedule –Ship A

Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
0001																					
0001AA																					
0001AB																					
0001AC																					
0002																					
0003																					
0010																					
Option 0012																					
Option 0102																					
Option 0112																					

Notional Sea-Based Multiple Ship Timeline



Task Order Two
USMC Land Base 3 Afghanistan

- Complement the organic Unmanned Aerial Vehicle Squadron (VMU) supporting the Marine Expeditionary Force (MEF) deployed to Land Base 3 in Afghanistan for Operation Enduring Freedom
- Deployment Period (Total 30 month Deployment)
  - 12 month Base Deployment
  - Option for an additional 12 month Deployment
  - Plus option for additional 6 month Deployment
- Level of Monthly Sensor Data Support
  - Up to 3600 Hours per Month
  - Option to increase to 3601 – 4200 Hours per Month
  - Option to increase to 4201 – 5400 Hours per Month

Draft RFP Attachment (5)

Task Order Two
USMC Land Base 3 Afghanistan

- CLINs grouped by period of performance
  - Basic Period – CLINs 0005, 0006, 0007, 0008, 0106, & 0206
  - Option Period 1 – CLINs, 1006, 1008, 1106, & 1206
  - Option Period 2– CLINs, 2006, 2008, 2106, & 2206

- CLIN 0010 Applies to the entire Task Order

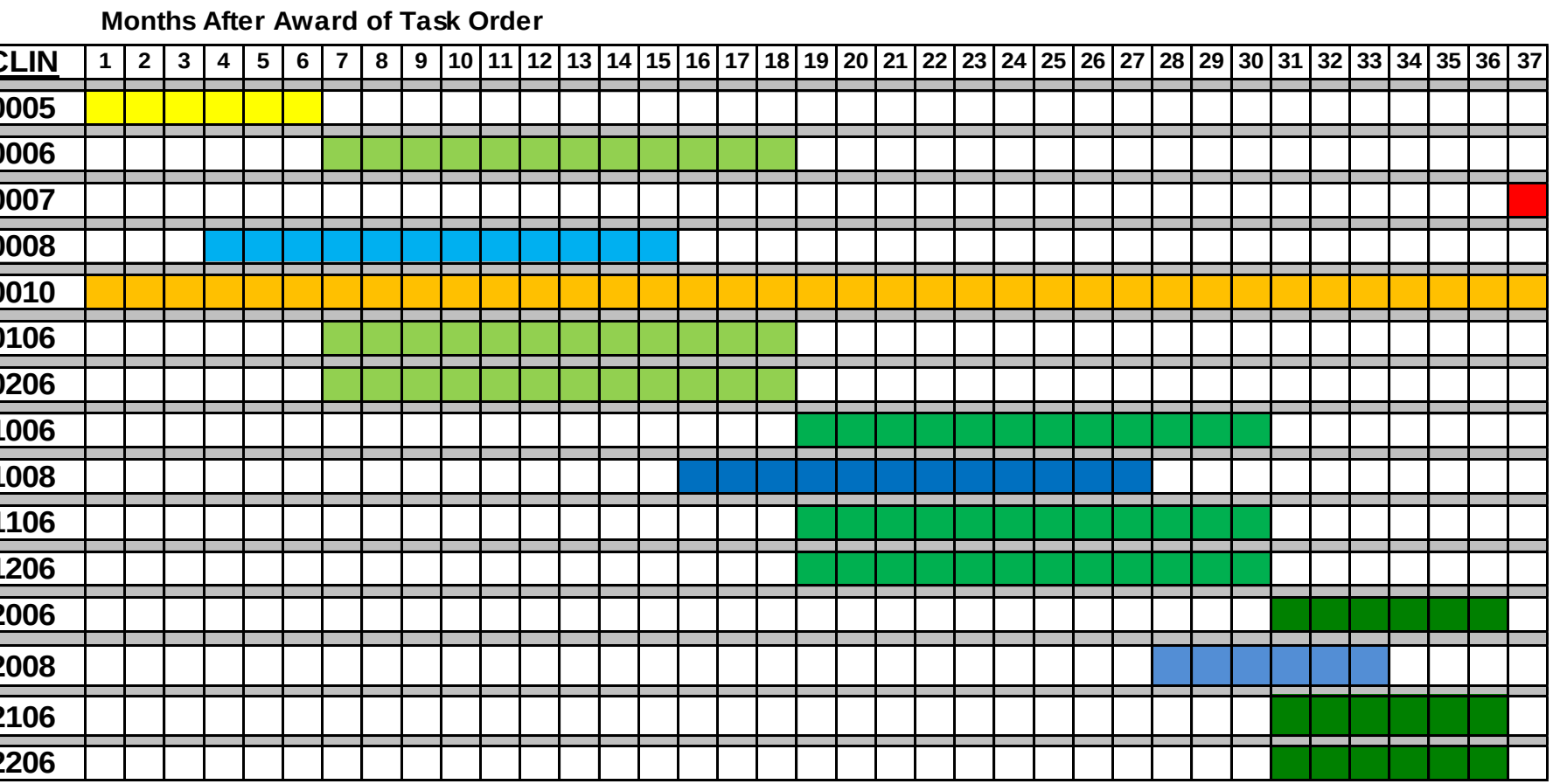
Task Order Two – Section B
USMC Land Base 3 Afghanistan

Item	Supplies/Services	Qty	Unit
0005	ISR Land-Based Pre-Deployment Support of CLIN 0006	1	Lot
0006	ISR Land-Based Deployment USMC LB 3 Basic Period up 3600 hrs per month	12	Mo
0007	ISR Land-Based Post Deployment De-install	1	Lot
0008	USMC Familiarization Training at MCAGCC Basic Period	12	Mo
0010	Data	1	Lot
Option 0106	ISR Land-Based Deployment USMC LB 3 Basic Period 3601 – 4200 hrs per month	12	Mo
Option 0206	ISR Land-Based Deployment USMC LB 3 Basic Period 4201 - 5400 hrs per month	12	Mo

Task Order Two – Section B
USMC Land Base 3 Afghanistan

Item	Supplies/Services	Qty	Unit
Option 1006	ISR Land-Based Deployment USMC LB 3 Option Period 1 up to 3600 hrs per month	12	Mo
Option 1008	USMC Familiarization Training at MCAGCC Option Period 1	12	Mo
Option 1106	ISR Land-Based Deployment USMC LB 3 Option Period 1 3601 – 4200 hrs per month	12	Mo
Option 1206	ISR Land-Based Deployment USMC LB 3 Option Period 1 4201 - 5400 hrs per month	12	Mo
Option 2006	ISR Land-Based Deployment USMC LB 3 Option Period 2 up to 3600 hrs per month	6	Mo
Option 2008	USMC Familiarization Training at MCAGCC Option Period 2	6	Mo
Option 2106	ISR Land-Based Deployment USMC LB 3 Option Period 2 3601 – 4200 hrs per month	6	Mo
Option 2206	ISR Land-Based Deployment USMC LB 3 Option Period 2 4201 - 5400 hrs per month	6	Mo

Task Order Two Schedule



Task Order Three
USAF Land-Based Dets 1&3

- Support USAF Detachment 1 Afghanistan & Detachment 3 Iraq
  - Separate CLINs and options for Afghanistan & Iraq

- Deployment Period (Total 30 month Deployment)
  - 12 month Base Deployment
  - Option for an additional 12 month Deployment
  - Plus option for additional 6 month Deployment

- Level of Monthly Sensor Data Support
  - Up to 300 Hours per Month
  - Option to increase to 301 – 600 Hours per Month

Draft RFP Attachment (6)

Task Order Three
USAF Land-Based Dets 1&3 Order

- CLINs grouped by location & period of performance
  - Basic Period Det 1 Afghanistan – CLINs 0005, 0006, 0007, & 0016
  - Basic Period Det 3 Iraq – CLINs 0105, 0106, 0107, & 0116
  - Option Period 1 Det 1 Afghanistan – CLINs 1006 & 1016
  - Option Period 1 Det 3 Iraq – CLINs 1106 & 1116
  - Option Period 2 Det 1 Afghanistan – CLINs 2006 & 2016
  - Option Period 2 Det 3 Iraq – CLINs 2106 & 2116

- CLINs 0010 & 0110 Apply to the entire Task Order

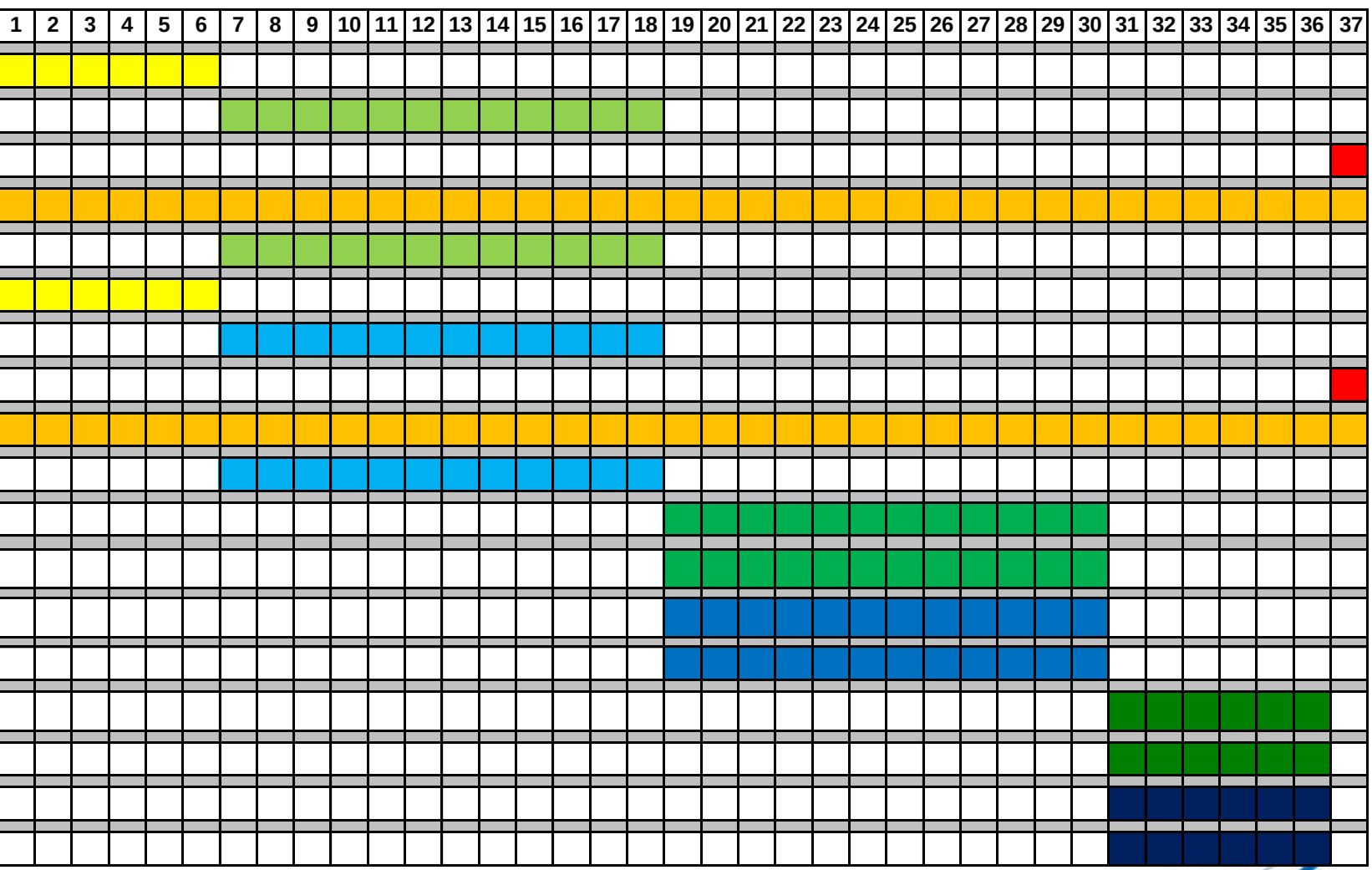
Task Order Three – Section B
USAF Land Detachments 1& 3

CLIN	Supplies/Services	Qty	Unit
0005	ISR Land-Based Pre-Deployment Det 1 Afghanistan	1	Lot
0006	ISR Land-Based Deployment USAF Det 1 Afghanistan Basic Period up 300 hrs per month	12	Mo
0007	ISR Land-Based Post Deployment De-install Det 1 Afghanistan	1	Lot
0010	Data	1	Lot
Option 0016	ISR Land-Based Deployment USAF Det 1 Afghanistan Basic Period 301 - 600 hrs per month	12	Mo
0105	ISR Land-Based Pre-Deployment Det 3 Iraq	1	Lot
0106	ISR Land-Based Deployment USAF Det 3 Iraq Basic Period up 300 hrs per month	12	Mo
0107	ISR Land-Based Post Deployment De-install Det 3 Iraq	1	Lot
0110	Data	1	Lot
Option 0116	ISR Land-Based Deployment USAF Det 3 Iraq Basic Period 301 - 600 hrs per month	12	Mo

Task Order Three – Section B
USAF Land Detachments 1& 3

Item	Supplies/Services	Qty	Unit
Option 1006	ISR Land-Based Deployment USAF Det 1 Afghanistan Option Period 1 up to 300 hrs per month	12	Mo
Option 1016	ISR Land-Based Deployment USAF Det 1 Afghanistan Option Period 1 301 –600 hrs per month	12	Mo
Option 1106	ISR Land-Based Deployment USAF Det 3 Iraq Option Period 1 up to 300 hrs per month	12	Mo
Option 1116	ISR Land-Based Deployment USAF Det 3 Iraq Option Period 1 301 – 600 hrs per month	12	Mo
Option 2006	ISR Land-Based Deployment USAF Det 1 Afghanistan Option Period 2 up to 300 hrs per month	6	Mo
Option 2016	ISR Land-Based Deployment USAF Det 1 Afghanistan Option Period 2 301 –600 hrs per month	6	Mo
Option 2106	ISR Land-Based Deployment USAF Det 3 Iraq Option Period 2 up to 300 hrs per month	6	Mo
Option 2116	ISR Land-Based Deployment USAF Det 3 Iraq Option Period 2 301 - 600 hrs per month	6	Mo

Task Order Three Schedule



Task Order Four
NAVAIR Category 3 Flight Clearance

- Task Order for Category 3 Flight Clearance
- No price competition
- To be awarded to each awardee who does not currently have a NAVAIR Category 3 Flight Clearance
  - Each successful Offeror will receive only one Category 3 Flight Clearance TO at a firm fixed price of $100K regardless if it is awarded Sea-Based, Land-Based, or both and regardless of the number of air vehicle models the Offeror proposes to use.

Draft RFP Attachment (7)

Section H - Special Contract Requirements

- H-1 “Reduced Payments” Clause
  - Performance Metric is Mission Reliability Rate (MRR)
  - MRR is defined as the Total credited mission hours completed over the course of a month / Total scheduled mission hours scheduled over the course of a month
  - MRR of 95% is the minimum threshold required for full payment
  - Payments are reduced for MRR falling below 95% in a month

MRR Decrement Factor	
MRR	Decrement Factor
95% - 100%	Full Payment
90% - 94%	5%
85% - 89%	10%
80% - 84%	15%

Draft RFP pages 12 - 14

Sample Mission Reliability Rate Calculation

Mission	Scheduled Hours	Adjusted Hours	Failure	Credited Hours	Comments
1S	10	10	C (1.5)	8.5	EO Camera failed
2S	10	8.5	G (1.5)	8.5	Weather
3S	10	10		11	Mission extended
4U	0	0		4	High value pop up
5S	10	10	C(6)	4	Engine failed
5A				2	Alternate aircraft
Total		38.5		38	

MRR= Credited Hours/Adjusted Hours

Draft RFP pages 12 - 14

Sample Mission Reliability Rate Calculation – Cont.

- The total credited hours for the 5 missions is 38 hours
- The total adjusted hours is 38.5
- Mission Reliability Rate: 38/38.5 = 99%

Section H - Special Contract Requirements

- H-2 TASK ORDER LINE ITEMS
  - Exercise Of Task Order Line Item Options
  - Task Orders may contain options
  - Options may be exercised during the period of performance of the Task Order
  - Task Order may contain additional instructions on option exercise sequence

- H-3 TASK ORDER AWARD PROCEDURE
  - Firm Fixed Priced Task Orders
  - Competed unless exception to Fair Opportunity
  - Best Value Source Selection

Draft RFP Page 14

Section H - Special Contract Requirements

- H-4 Category 3 NAVAIR Flight Clearance Task Order
  - FFP $100,000
  - One time, regardless of Sea-Based, Land-Based, or both; or number of air vehicle models proposed
  - Not a guarantee that Contractor will obtain a NAVAIR Cat 3 Flight Clearance
  - Contractor responsible for any contractor expenses beyond the $100,000
  - If unable to obtain NAVAIR Cat 3 Flight Clearance, contractor not able to perform ISR Services under this MAC

Draft RFP page 15

Source Selection Overview / Sections L & M

Source Selection Office Director

Source Selection Objectives

- Choose the contractor who provides the best value to the Government, all factors considered.
- Obtain through use of a comprehensive evaluation process, providing fair and consistent evaluation of proposals.

** Draft RFP Page 90*

The Source Selection Process

Req'ts Developed
- SOO
- P-Spec

Plan the Approach
- Acquisition Strategy/Plan
- SSP

Market Research & Early Exchanges w/Industry
- Draft RFPs
- One-on-ones
- Industry Days
- Tech. Library

SSAC/L&M

SSAC | SSA

Formal RFP

Peer Review

Receive Proposals

Evaluate Proposals

Debrief

Peer Review

Generic Source Selection Process

SSAC | SSA

Competitive Range
(or SSA Selects Source)

Discussions w/ Offerors (ENs)

SSA

Select Source

SSAC

Compare Proposals

Evaluate FPRs

Request Final Proposal Revision (FPRs)

SSAC | SSA

Complete Discussions

Peer Review

Sections L and M

- Understanding and following Sections L&M are the keys to developing a good proposal; a mutually beneficial goal for award

- Proposal Instructions – Section L of the RFP:
  - Tells Offerors what to put in the proposal

- Evaluation Criteria – Section M of the RFP:
  - Identifies what will be evaluated

Draft Section M
Evaluation Factors – *General*

- More than one Offeror is expected to be selected for each PBWS within the Multiple Award Contract (MAC) on the basis of its proposal providing the "best value" to the Government, all factors considered.
- Offerors may propose to the Sea-Based PBWS, the Land-Based PBWS, or both.
  - Each of these PBWS requirements will be evaluated separately.
- The best value proposals for each of these PBWS requirements will be selected for the MAC award, allowing them to compete for future task orders related to the requirements for which they were selected .
  - Amongst these best value proposals, Task Order(s) One, Two, and Three may also be awarded to the Offeror considered Best Value for each Task Order.

**** Draft RFP Page 90***

Intend on awarding without discussions …

- Award based on initial proposals can happen if the Government receives offers that conform with the solicitation and provide the greatest overall benefit to the Government, all factors considered.
- Don't assume you can improve your position during discussions, there may not be discussions.
- However, …

**** Draft RFP Page 90***

...the Government Reserves the Right to Conduct Discussions

- Still, don't assume you can improve your position because you may not be included in the Competitive Range
- Those included in the Competitive Range will enter into Discussions
  - Evaluation Notices (ENs)
    - » As a minimum, notification of deficiencies, uncertainties and significant weaknesses
    - » Ask for additional information
  - Proposal change pages where needed
    - » Helps to easily identify changes
    - » Minimizes work for the Final Proposal Revision (FPR)

**** Draft RFP Page 90***

Draft Evaluation Criteria

TECHNICAL
(Technical Rating and Technical Risk Rating)

>

PAST PERFORMANCE
(Performance Confidence Assessment Rating)

=

CORPORATE EXPERIENCE
(Experience Confidence Assessment Rating)

>

Price ($$$)

Task Order Prices

** Draft RFP Pages 90-91*

Key: = (equal); > (more important)

Draft Section L
Proposal Instructions Outline

Volume I	Executive Summary
Volume II	Technical
Book 1	Sea-Based UAS
Book 2	Land-Based UAS
Volume III	Past Performance
Volume IV	Corporate Experience
Volume V	Price
Volume VI	Terms and Conditions, Assumptions, Exceptions or Deviations
Annex S1-L9	Supporting Data
EO and IR Video	Sample Videos on HDD
Annex SB1	Small Business

**** Draft RFP Page 57***

Proposal Content & Volumes

Volume Number	Volume Title	Suggested Pages
1	EXECUTIVE SUMMARY	10
2 Book 1 (2.1)	TECHNICAL Book 1 – Sea-Based UAS	100
2 Book 2 (2.2)	TECHNICAL Book 2 – Land-Based UAS (If same info. Sea-Based, reference)	100 (Less if already covered in Sea-Based)
3	PAST PERFORMANCE	40
4	EXPERIENCE	40
5	PRICE	As Needed
6	TERMS & CONDITIONS	As Needed
Annexes	Annexes S1- S9 Sea-Based Supporting Data Annexes L1- L9 Land-Based Supporting Data Annex SB1 Small Business Subcontract Plan	As Needed

**** Draft RFP Pages 58 - 59***

Proposal Content & Volumes

- Technical and Supporting Data submitted for Land-Based requirements does not need to be repeated if identical to Sea-Based Technical Volume. **Reference Sea-Based submittal in Land-Based Volume**
- Technical Annexes should be used to provide supporting data. Supporting data should be only referenced in Technical Volume(s).
- Supporting Data to be provided in annexes:
  - Manuals, specifications, plans, procedures, test reports, drawings, engineering analysis, subcontractor documentation
- Annexes do not have page limitations and do not count toward suggested page counts

**** Draft RFP Pages 57-58***

Volume 1 – Executive Summary

- i. Offeror Summary Table
  - One table for Sea-Based; One table for Land-Based
- ii. **Signed SF 33 for basic solicitation and amendments**
- iii. **Signed Representations & Certifications**
- iv. Technical Summary
- v. Past Performance Summary
- vi. Experience Summary
- vii. Terms and Conditions

- No Price Information

**** Draft RFP Pages 63-64***

Draft Section M - Evaluation Factors
- Technical -

- The Government will assess the Offeror's Technical Proposal with respect to its compliance with the solicitation requirements and the risk associated with the Offerors approach.
  - Used in selecting MAC and Task Orders
  - When selecting for the Task Orders, Task Order capabilities for the applicable Task Order will be considered

- The evaluation will include an assessment of:
  - System Capabilities
  - Task Order Capabilities
  - Small Business Utilization Strategy.

**** Draft RFP Page 91***

Technical Evaluation Flow

Technical Factor; Volume 2.0

Section L Paragraphs:

2.1	**Sea-Based UAS – Book 1**
2.1.1	**System Capabilities**
2.1.1.1	**General System Capabilities**
2.1.1.2	**Continuous Video Electro-Optic (EO) Sensor Data Capability**
2.1.1.3	**Continuous Video Infrared (IR) Sensor Data Capability**
2.1.1.4	**Integration of EO & IR Sensors into the Airframe**
2.1.1.5	**Air Vehicle Performance**
2.1.1.6	**Powerplant**
2.1.1.7	**GCS and Datalink Capabilities**
2.1.1.8	**Ship-Integration / Physical Footprint**
2.1.1.9	**Launch and Recovery Capability**
2.1.1.10	**ElectroMagnetic Compatibility**

** Draft RFP Pages 65-70*

Technical Evaluation Flow

Technical Factor; Volume 2.0

Section L Paragraphs:

2.1	Sea-Based UAS – Book 1 (Cont.)
2.1.2	Task Order Capabilities - Sea Based
2.1.2.1	Task Order System Equipment Required
2.1.2.2	Deployed Personnel
2.1.2.3	Scheduling
2.1.2.3.1	Schedule/Lead times (Pre-deployment phase)
2.1.2.3.2	Typical Deployment Daily Operations
2.1.3	Small Business Utilization Strategy

** Draft RFP Pages 65-70*

Technical Evaluation Flow

Technical Factor; Volume 2.0

Section L Paragraphs:

2.2	Land-Based UAS – Book 2
2.2.1	System Capabilities
2.2.1.1	General System Capabilities
2.2.1.2	Continuous Video Electro-Optic (EO) Sensor Data Capability
2.2.1.3	Continuous Video Infrared (IR) Sensor Data Capability
2.2.1.4	Integration of EO & IR Sensors into the Airframe
2.2.1.5	Air Vehicle Performance
2.2.1.6	Powerplant
2.2.1.7	GCS and Datalink Capabilities
2.2.1.8	Physical Footprint
2.2.1.9	Launch and Recovery Capability
2.2.1.10	ElectroMagnetic Compatibility

** Draft RFP Pages 71-79*

Technical Evaluation Flow

Technical Factor; Volume 2.0

Section L Paragraphs:

2.2	Land-Based UAS – Book 2 (Cont.)
2.2.2	Task Order Capabilities – Land Based (per Task Order)
2.2.2.1	Task Order System Equipment Required
2.2.2.2	Deployed Personnel
2.2.2.3	Scheduling
2.2.2.3.1	Schedule/Lead times (Pre-deployment phase)
2.2.2.3.2	Typical Deployment Daily Operations
2.2.3	Small Business Utilization Strategy

** Draft RFP Pages 71-79*

Technical - Cross Reference Matrix

- Provided in Section L as guidance to Offerors
- Road map to RFP and proposal
- Shows relationship between the proposal instructions paragraphs and RFP requirements
- Use as is or revise as needed to better relate your understanding of the program and guide the Government through your proposal

**** Draft RFP Pages 60-61***

Draft Section L
Cross Reference Matrix

Section L – Proposal Instructions	Land-Based PBWS	Sea-Based PBWS	T.O [1]	Proposal Reference
2.0 Vol. 2 Technical	2.0	2.0	All	
2.1 Book 1 - Sea Based UAS		2.0		
2.1.1 System Capabilities		2.0		
2.1.1.1 General System Capabilities		2.0		
2.1.1.2 Continuous Video Electro-Optic (EO) Sensor Data Capability		2.1.7, 2.6		
2.1.1.3 Continuous Video Infrared (IR) Sensor Data Capability		2.1.7,2.6		
2.1.1.4 Integration of EO & IR sensors into the Airframe		2.1.7		
2.1.1.5 Air Vehicle Performance		2.1.5		
2.1.1.6 Powerplant		2.1.9		
2.1.1.7 GCS and Datalink Capabilities		2.4, 2.5		
2.1.1.8 Ship-Integration / Physical Footprint		2.2, 2.4		
2.1.1.9 Launch and Recovery Capability		2.1.6, 2.1.10		
2.1.1.10 ElectroMagnetic Compatibility (EMC)		4.1.1.2		

Draft Section L
Cross Reference Matrix

Section L – Proposal Instructions	Land-Based PBWS	Sea-Based PBWS	T.O [1]	Proposal Reference
2.1.2 Task Order Capabilities		4.2	DDG All	
2.1.2.1 Task Order System Equipment required			DDG Section C	
2.1.2.2 Deployed Personnel		4.4	DDG Section C	
2.1.2.3 Scheduling		4.2.3, 4.2.4	DDG Section F	
2.1.2.3.1 Schedule/Lead times (Pre-deployment phase)		4.1, 4.1.1.1	DDG Section F	
2.1.2.3.2 Typical Deployment Daily Operations		4.2, 4.2.5	DDG Section F	
2.1.3 Small Business Utilization Strategy				
2.2 Book 2 - Land-Based UAS	2.0			
2.2.1 System Capabilities	2.0			
2.2.1.1 General System Capabilities	2.0			
2.2.1.2 Continuous Video Electro-Optic (EO) Sensor Data Capability	2.1.6, 2.6			

Draft Section L
Cross Reference Matrix

Section L – Proposal Instructions	Land-Based PBWS	Sea-Based PBWS	T.O [1]	Proposal Reference
2.2.1.3 Continuous Video InfraRed (IR) Sensor Data Capability	2.1.6, 2.6			
2.2.1.4 Integration of EO & IR sensors into the Airframe	2.1.6.1			
2.2.1.5 Air Vehicle Performance	2.1.5			
2.2.1.6 Powerplant	4.2.7			
2.2.1.7 GCS and Datalink Capabilities	2.4, 2.5, 4.2.6			
2.2.1.8 Physical Footprint	2.1.5, 2.2.1, 2.4.6			
2.2.1.9 Launch and Recovery Capability	2.1.5, 2.1.8			
2.2.1.10 ElectroMagnetic Compatibility (EMC)	4.1.1.2			
2.2.2A Task Order Capabilities – USMC LD-3	4.2		USMC All	
2.2.2.1A Task Order System Equipment required			USMC Section C	
2.2.2.2A Personnel	4.4		USMC Section C	
2.2.2.3A Scheduling	4.2.3, 4.2.4		USMC Section F	
2.2.2.3.1A Schedule/Lead times (Pre-deployment phase)	4.1, 4.1.1.1		USMC Section F	

Draft Section L
Cross Reference Matrix

Section L – Proposal Instructions	Land-Based PBWS	Sea-Based PBWS	T.O [1]	Proposal Reference
2.2.2.3.2A Daily Operations	4.2, 4.2.5, 2.3		USMC Section F	
~~2.2.3A Small Business Utilization Strategy~~			USMC	
2.2.2B Task Order Capabilities – USAF DET 1&3	4.2		USAF All	
2.2.2.1B Task Order System Equipment required			USAF Section C	
2.2.2.2B Deployed Personnel	4.4		USAF Section C	
2.2.2.3B Scheduling	4.2.3, 4.2.4		USAF Section F	
2.2.2.3.1B Schedule/Lead times (Pre-deployment phase)	4.1, 4.1.1.1,		USAF Section F	
2.2.2.3.2B Daily Operations	4.2, 4.2.5		USAF Section F	
2.2.3~~B~~ Small Business Utilization Strategy			USAF/USMC	

Section L Technical Volume - General Guidance -

- Throughout the Technical Volume identify any capability, approach or feature that is being proposed as
  - Exceeding a requirement (or provides enhancement) with respect to performance or operational benefits
  - Reducing risk inherent in the program
- Explain the benefits to the Government in technical terms and the degree of impact it will have to performance, operations and/or risk
  - Appreciably exceeding requirements that are expressed as a minimum or threshold requirement can potentially produce performance or operational benefits
    - » Beyond the point where there is performance or operational benefit, there may be risk reduction benefits

**** Draft RFP Page 64***

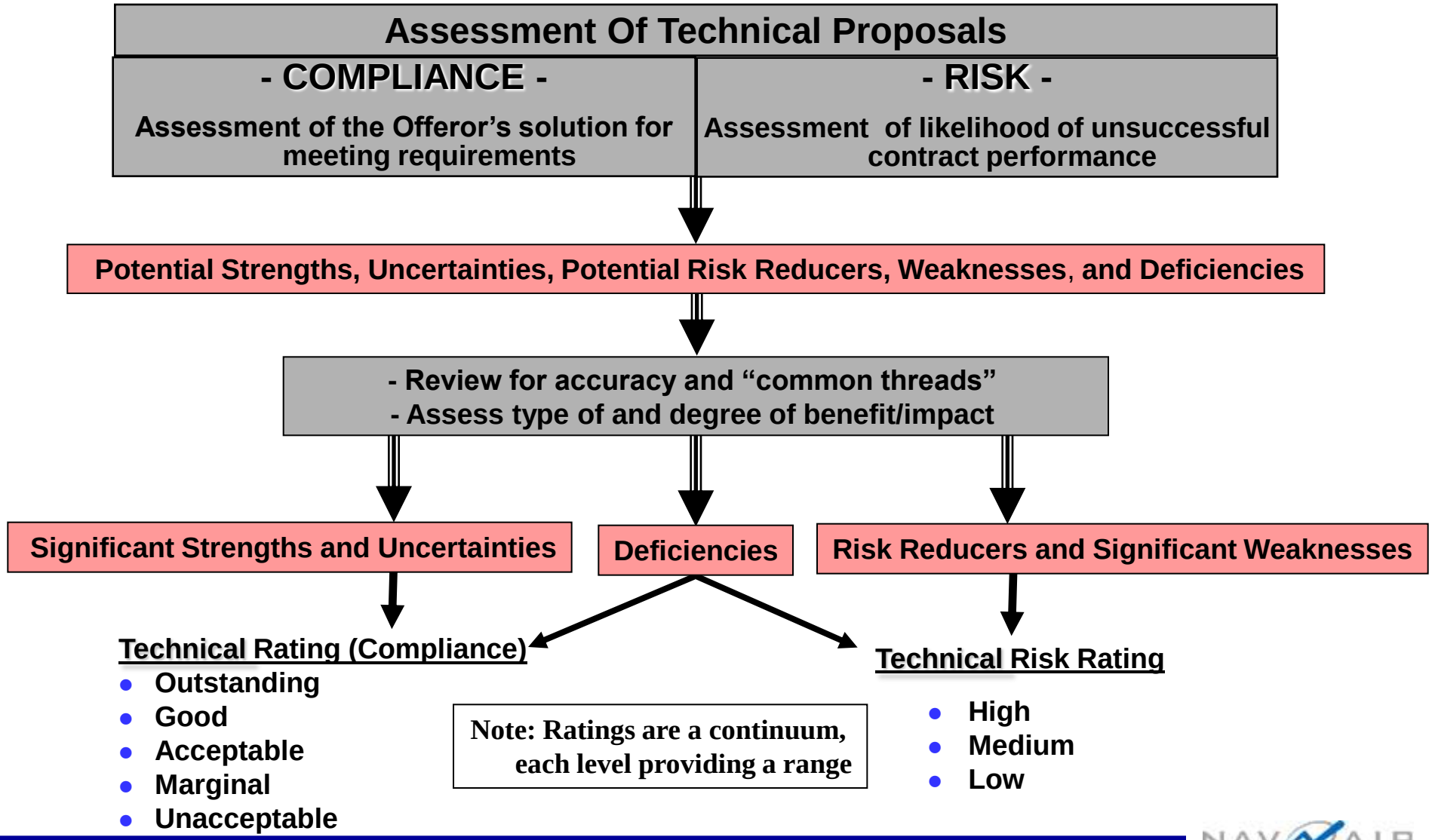
Section L Technical Volume (Con't) - General Guidance -

- Appreciably exceeding the threshold in requirements that are expressed with both a threshold and an objective can also potentially produce performance or operational benefits, but only up to the objective
  - » If the objective is also appreciably exceeded, that part could be considered as risk reduction, providing confidence that the objective will be met
- A proposal that provides the Government with a capability, service or resource that is not specifically required, but benefits the program can have merit if it appreciably enhances performance and/or operations to benefit the Government

• Any offer to exceed a requirement or to provide a feature with performance and/or operational benefits may be included in the resulting applicable Task Order within the proposed price

**** Draft RFP Page 64***

Technical Evaluation Grading
- Qualitative -



Technical Strength

- Strength Definition: An aspect of an offeror's proposal that has merit or exceeds specified performance or capability requirements in a way that will be advantageous to the Government during contract performance.

- Affects Technical Rating (Compliance)
  - Provides appreciable performance or operational benefits to the Government
  - Each strength may provide different degrees of benefit, thereby affecting the rating differently
  - Used to determine adequacy of approach and understanding of requirement
    - » Strengths without a deficiency or uncertainty indicates a thorough (Good Rating) or exceptional understanding and approach (Outstanding Rating)
      - Section M: “The degree of benefit to the Government associated with a strength(s) will be considered in determining whether the Offeror’s approach and understanding of requirements rises to a level of being thorough or exceptional.”
    - » No strengths, deficiencies or uncertainties indicate an adequate approach and understanding (Acceptable Rating)

** Draft RFP Page 91 & 95*

Technical Strength (Con't)

- Strength Examples
  - Exceeds minimum requirement with appreciable benefit to the Government
  - Approach contains a feature that enhances operational or other program/product capability with appreciable benefits to the Government (Aspect of a proposal that has merit.)

Technical Uncertainty

- Uncertainty Definition: An aspect of the proposal that affects the Government's ability to determine if a requirement will be met.
- Affects Technical Rating (Compliance)
  - Proposal is not adequate to allow a determination as to whether or not a requirement can be met and as such also does not demonstrate an adequate approach
  - Results in a Marginal Rating
    - » Section M: "Offerors are also advised that a Marginal rating will make the proposal unawardable without discussions."
- Uncertainties Examples
  - Critical information is missing to enable the Government to determine if the requirement will or can be met
  - Inconsistencies in the proposal brings into question what is being proposed

**** Draft RFP Pages 91 & 95***

Technical Deficiency

- Deficiency Definition: "Deficiency" is a material failure of a proposal to meet a Government requirement or a combination of significant weaknesses in a proposal that increases the risk of unsuccessful contract performance to an unacceptable level.
- Affects the Technical Rating (compliance) or both the Technical Rating and the Technical Risk Rating
  - Results in an Unacceptable Rating and makes the proposal unawardable
    - » Section M: An "Unsatisfactory" or "Unacceptable" Rating or a "High" Risk Rating may result in the entire proposal being found unacceptable and eliminated from the competition."

**** Draft RFP Pages 91 & 95***

Technical Deficiency (Con't)

- Deficiency Examples
  - Proposal states exception or deviation
  - Approach is assessed to be unable to meet a requirement
  - Gross lack of information resulting in the failure to clearly and positively address major part of the Technical factor
  - Combination of weaknesses that raise the risk of performance to an unacceptable level
  - Requirements can only be accomplished by impacting Government operations, capability or resources beyond what is allowed/normal for this effort or system
  - The approach relies on Government resources or operations not identified as available in order to comply with the requirement

Technical
- Technical Rating Definitions -

Technical Ratings: The rating assignments reflect the Government's assessment of the offeror's technical solution for meeting the Government's requirement.

Rating		Description
Blue	Outstanding	Proposal meets requirements and indicates an exceptional approach and understanding of the requirements. The proposal contains multiple strengths and no deficiencies.
Purple	Good	Proposal meets requirements and indicates a thorough approach and understanding of the requirements. Proposal contains at least one strength and no deficiencies.
Green	Acceptable	Proposal meets requirements and indicates an adequate approach and understanding of the requirements. Proposal has no strengths or deficiencies.
Yellow	Marginal	Proposal does not clearly meet requirements and has not demonstrated an adequate approach and understanding of the requirements.
Red	Unacceptable	Proposal does not meet requirements and contains one or more deficiencies and is unawardable.

** Draft RFP Page 93*

Technical Risk Reducer

- Risk Reducer Definition: An aspect of an offeror's proposal that reduces risk in a way that will be advantageous to the Government during contract performance.
- Affects Technical Risk Rating
  - Provides appreciable risk reducing benefits to the Government that may mitigates weaknesses or further reduces the risk to performance
  - Each risk reducer may provide different degrees of benefit, thereby affecting the risk rating differently
  - Used to assess the risk associated with the proposed approach
- Risk Reducer Examples
  - Reduces proposal risk by providing more than sufficient resources in order to respond to unknown conditions/situations
  - Reduces proposal risk by providing resources/capabilities that are in-place and ready to be used
  - Reduces proposal risk by providing plans that reduce/mitigates risks inherent in the proposed approach and program
  - Reduces proposal risk by providing performance margin

Technical Significant Weakness

- Significant Weakness Definition: A “Significant Weakness” in the proposal is a flaw that appreciably increases the risk of unsuccessful contract performance.
- Affects Technical Risk Rating
  - Provides appreciable increases in risk to the Government
  - Used to assess the risk associated with the proposed approach
  - Each significant weakness may provide different degrees of impact, thereby affecting the risk rating differently based on the likelihood of occurrence and the consequences
    - » An “Unacceptable” Rating or a “High” Risk Rating may result in the entire proposal being found unacceptable and eliminated from the competition.
- Significant Weakness Examples
  - Marginal resources or capability to accomplish the effort
  - Approaches that rely on resources or actions not within the Offeror’s full control
  - Approaches that rely heavily on a single action or resource (aka single point failure)
  - Untested/unproven approaches
  - Lacks substantiation or full description of the approach
  - Lacks information to assess risk

**** Draft RFP Pages 91 & 95***

Technical
- Proposal Risk Definitions -

Technical Risk Ratings: The risk rating assignments reflect the Government's assessment of the potential for disruption of schedule, increased costs, degradation of performance, the need for increased Government oversight, or the likelihood of unsuccessful contract performance.

Rating	Description
Low	Has little potential to cause disruption of schedule, increased cost or degradation of performance. Normal contractor effort and normal Government monitoring will likely be able to overcome any difficulties.
Moderate	Can potentially cause disruption of schedule, increased cost or degradation of performance. Special contractor emphasis and close Government monitoring will likely be able to overcome difficulties.
High	Is likely to cause significant disruption of schedule, increased cost or degradation of performance. Is unlikely to overcome any difficulties, even with special contractor emphasis and close Government monitoring.

** Draft RFP Page 93*

Experience vs. Past Performance

- **Experience** – What you have done
  - "I've repaired 100 leaky boats in the past month."
- **Past Performance** – How well you have done
  - "Ninety leaked!"

Draft Section M Evaluation Factors
- Past Performance -

- Evaluate the Offeror's, and (if applicable) its major subcontractors (major subsystem Provider/Original Equipment Manufacturer (OEM) (i.e. Airframe, Powerplant, and Sensor/Payload providers)); and Joint Venture/Single Legal Entity (JV/SLE) team members' demonstrated past performance in delivering quality products and services similar to the solicitation requirements in each of the following areas:
  - Meeting technical requirements
  - Meeting schedule requirements
  - Controlling contract cost, and
  - Managing the contracted effort on similar programs
- The degree of relevancy assessed at the contract level may indicate the likelihood that relevant negative or positive findings associated with that contract may be found.
  - However, it is the degree of relevancy of the finding, as well as its associated consequence that will be used in determining the Confidence Level Rating.
- Demonstrated systemic improvement
  - Consideration for discounting problems may be given when those problems are addressed through demonstrated systemic improvement

**** Draft RFP Page 92***

Past Performance
-Evaluation Concept-

Look Back

- How did Offeror perform on current or past contracts?
  - Review Offerors Past Record, e.g., CPARS, Questionnaires
  - Determine Relevancy / Recency
- Assess each contract referenced
- Assess each relevant contract found through an independent Government search
- Roll up each relevant reference assessed into an overall Offeror assessment

Look Forward

- Based on Offeror's assessment (Look Back), how do we think they will perform on the program?
- Final product is a determination of the Performance Confidence Assessment Rating for the ISR Contract

Past Performance Proposal

- Identify contracts containing efforts similar to the ISR effort
  - For Prime, Major Subcontractors and JV/SLE team members
  - All contracts submitted for Experience should also be submitted for Past Performance or an explanation of why not
  - Performance within 5 years of proposal due date
  - Relate to same plant, division or cost center where you propose to accomplish work
- Provide agreements between you and your subs/team members to allow us to coordinate past performance issues
- Provide past performance information, at least 3 weeks prior to proposal due date
  - Contract data, Attachment 13 (see Section L, Part B, Para 3.2) on a CD-ROM and one paper copy
  - Offeror Summary Table providing prime and subcontractor/team member roles and responsibilities (see Section L, Part B, Para 1.0 i) on a CD-ROM and one paper copy

**** Draft RFP Pages 80-84***

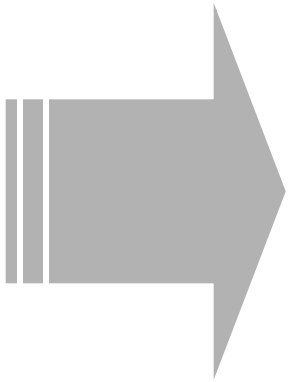
Relevancy in the Past Performance Assessment

- Relevant efforts are those which have a logical connection to the RFP requirements and occurred within the applicable time span
  - The question to ask is, “Will the Contractor’s performance associated with this reference have a bearing on the future performance of the proposed contract?”
- Contracts that are Not Relevant are not utilized in the assessment
- Confidence Assessment is influenced by the likelihood of future reoccurrence and associated consequences
  - More relevant contracts are more likely to have more relevant finding
  - The more relevant the finding, the more likely it will reoccur
- Provide a comparative analysis between past reference and the RFP coupled with the proposed approach; focus on key or critical tasks
  - Similarity, complexity, scope, dollar value, contract type, Place of Performance (CAGE Code/DUNS), proposed roles (prime, subcontractor, assigned work)
  - Recency (within the past 5 years from proposal submittal); more recent is more relevant

Past Performance Information

PPI Sources:

- Offerors' Proposals
- PPIRS
- Questionnaires
- Phone Interviews
- DACO/DCMA
- Other



Past Performance Information

Past Performance Questionnaires

- Past Performance Questionnaires (Section L Past Performance Attachment (12))
  - Send to contacts within 2 weeks from receipt of the RFP where CPAR data is not available
  - Remove RFP number from Questionnaires prior to sending out
- Request responses back to ISR POC within two weeks of receipt
- Identify in Attachment 13 when and where the questionnaires were sent
- DO NOT FOLLOW-UP on Questionnaires; The Government will perform all follow-up actions
  - Ensure that all points of contacts (POS's) are current

Draft RFP Page 80

Section L Past Performance Volume Relevant Contract Data (Attachment 13)

Summary of Relevant Contract Data for the UAS ISR Program		
1	Contractor Name (Offeror's Prime or Subcontractor) (Include Cage and DUNs)	Proposed for ISR
2	Contract Reference (e.g. P1, P2, S1, S2, etc)	Past relevant contracts for the proposed Prime (e.g. P1) and proposed Subcontractor (e.g. S1)
3	Title of contract	
4	Contract number and Type	Contract of the prime
5	Subcontract Number/PO Number (If acting as subcontractor on this past contract; For the prime contract identified in 4 above, identify the contracted parties.)	Only applies if performed as subcontractor on this reference
6	Procuring agency (related to the prime contract)	
7	Description of product or service	
8	Period of performance	Place of Performance
9	Cage Code: XXXXX	
10	DUNs #: XX-XXX-XXXX	
11	If Cage/DUNs listed above is different than the Offeror listed in your Executive Summary, explain how that other division or subsidiary will be utilized in your proposed effort and why it is relevant to this evaluation	Explain how this entities performance will have a bearing on the future performance of the proposed contract

Section L Past Performance Volume Relevant Contract Data (Con't)

Summary of Relevant Contract Data for the UAS ISR Program		
12	Dollar value of contract	
13	Acquisition Phase(s) of Contract	
14	Identify if the Offeror acted as Prime or subcontractor on this past contract.	
15	Identify the date(s) of the completed CPARs in PPIRS. (Also, complete the below POC information.)	
16	If no CPARs are in PPIRS, identify the date past performance questionnaires were sent. (Also, complete below POC information)	
17	Points of Contact who can validate performance on above listed contract	
17a	PCO name:	phone/email:
17b	ACO name:	phone/email:
17c	PM name:	phone/email:
17d	Other (name & title):	phone/email:
18	Contractor's Relevancy Assessment (See Note 1 below)	

Role on contract referenced past contract

Ensure all contact info is current!!

Short summary of what is presented in paragraph 3.3.1 and identify as VR or SR

Contract Relevancy

- Provide a concise assessment of the degree of relevancy for referenced contract and identify it as Very Relevant (VR) or Somewhat Relevant (SR)
  - Very Relevant (VR) – Present/past efforts involved ***essentially the same*** scope and magnitude of effort and complexities this solicitation requires.
  - Somewhat Relevant (SR) - Present/past efforts involved ***some of the*** scope and magnitude of effort and complexities this solicitation requires.
- The contract relevancy assessment should be relative to the prime's, major subcontractor's or JV/SLE team member's proposed role/responsibility versus relative to the whole solicitation.
- Contracts assessed by the Government to involve ***little to none*** of the scope, magnitude of effort and/ or complexities that this solicitation requires, will be assessed as Not Relevant.

Past Performance

- Provide information that demonstrates the level of performance obtained
  - Where available, provide quantifiable measures/trends to *demonstrate* past performance

- Demonstrated Systemic Improvement - Information as it relates to preventing recurrence of past problems
  - Identification of the root cause of problem
  - Corrective action plan that systemically addresses the past problem
  - How and when the plan was implemented
  - Documented timeframe to demonstrated corrective action was implemented and successful
  - Performance data, preferably through Government records, to show performance improvements demonstrated systemic improvement
  - Bottom-line: Demonstrate that the problem will not reoccur or the extent that the likelihood of reoccurrence is reduced

Past Performance (Con't)

- Award Fee
  - If you are aware that this data may contradict either a CPAR or questionnaire, please provide an explanation in this section
- Small Business Concerns
  - Provide copies of three final or most recent individual subcontracting reports from the electronic Subcontracting Reporting System (eSRS) (formerly the SF 294s) for the most three relevant contracts
- Provide current contact information (e.g. POC's)

**** Draft RFP Page 84***

Past Performance Proposal Format

- Paragraph 3.2 – Summary of Contract data in Attachment 13
  - Separate Tab for each contract (e.g. ABC Company Past Contract XXX P1)

- Paragraph 3.3 – Detailed Information provided for each contract, organized by contract
  - ABC Company Past Contract XXX P1
    - » 3.3.1
    - » 3.3.2
    - » 3.3.3
    - » 3.3.4
    - » 3.3.5
  - ABC Company Contract XXX Pn
    - » 3.3.1 ….
  - RX Sub Company Past Contract XXX S1
    - » 3.3.1 ….
  - ST Sub Company Past Contract XXX Sn
    - » 3.3.1 ….

**** Draft RFP Page 84***

Past Performance Evaluation Grading - Qualitative

Assessment Of Relevant Past Performance

↓

Positive and Negative Findings

↓

Past Performance Analysis of Findings as related to Future Performance

- Trends
- Relevancy of finding /likelihood that findings are a predictor of similar performance
  - Extent to which demonstrated systemic improvement reduces the likelihood of a negative finding from re-occurring
- Impact: Consequences/severity of poor performance and Benefits of good performance

↓

Significant Positive and Negative Findings

↓

Performance Confidence Assessment

↓

Confidence Assessment Rating

- Substantial Confidence
- Satisfactory Confidence
- Limited Confidence
- No Confidence
- Unknown Confidence (Neutral)

Note: Ratings are a continuum, each level providing a range

Past Performance
- Confidence Assessment Definitions -

Past Performance Confidence Assessment Rating: Performance Confidence Assessment rating assignments reflect the Government's confidence that the Offeror will successfully perform the solicitation's requirements based on the Offeror's relevant past performance and systemic improvement.

Rating	Description
Substantial Confidence	Based on the Offeror's recent/relevant performance record, the Government has a ***high expectation*** that the Offeror will successfully perform the required effort.
Satisfactory Confidence	Based on the Offeror's recent/relevant performance record, the Government has a ***reasonable expectation*** that the Offeror will successfully perform the required effort.
Limited Confidence	Based on the Offeror's recent/relevant performance record, the Government has a ***low expectation*** that the Offeror will successfully perform the required effort.
No Confidence	Based on the Offeror's recent/relevant performance record, the Government has ***no expectation*** that the Offeror will be able to successfully perform the required effort.
Unknown Confidence (Neutral)	No recent/relevant performance record is available or the Offeror's performance record is rating can be ***so sparse that no meaningful confidence assessment*** rating can be reasonably assigned.

**** Draft RFP Page 94***

Draft Section M Evaluation Factors
- Corporate Experience -

- Evaluate the Offeror's, which includes its major subcontractors; and JV/SLE team members' demonstrated relevant experience on the basis of its breadth, depth, recency, and similarity to the work required to meet the program objectives.

- Areas to be evaluated will include:
  1) Hostile Environment Operations;
  2a) Sea-Based Operation of UAVs (applicable if proposing to the Sea-Based requirement);
  2b) Land-Based Operation of UAVs (applicable if proposing to the Land-Based requirement);
  3) Intelligence, Surveillance, and Reconnaissance Services; and
  4) Prime Contractor and Management Experience.

**** Draft RFP Page 92***

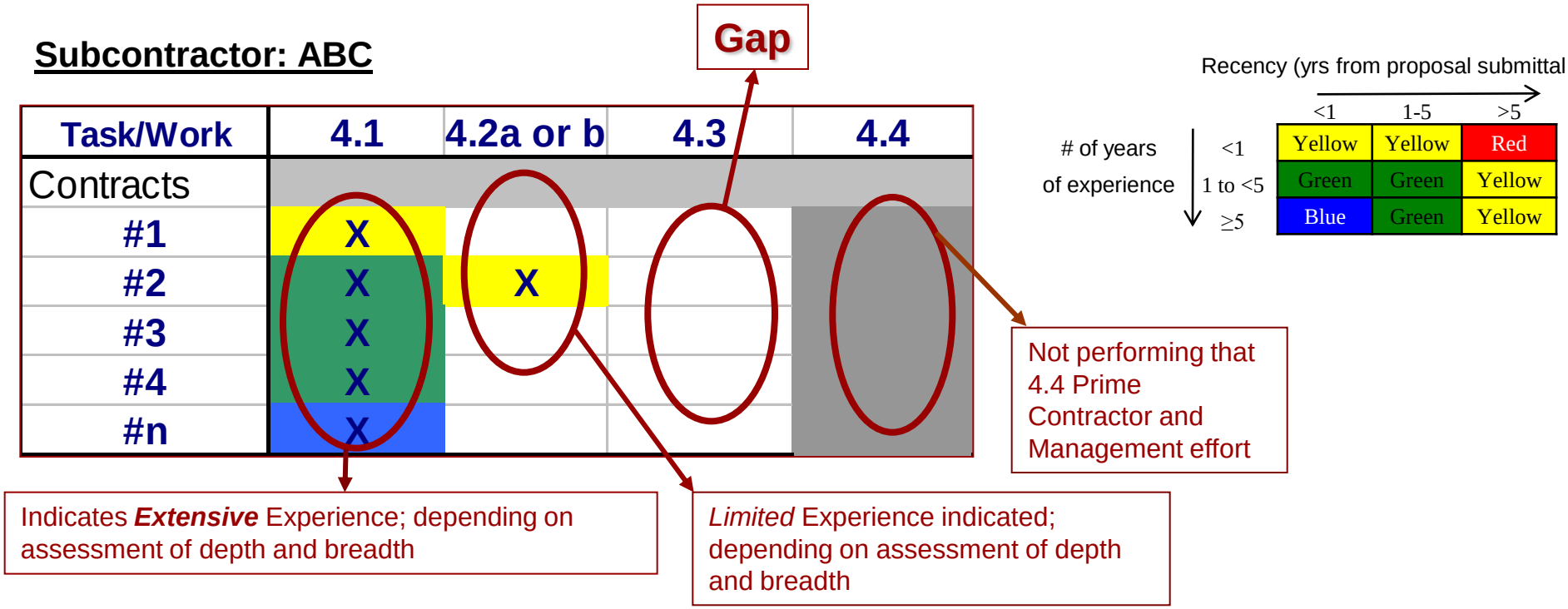
Corporate Experience Proposal

- Provide contracts that demonstrate experience relevant to the program and your proposed approach
  - For each prime and subcontractor as it relates to their assigned responsibility
  - Don’t give credit for experience in an area that the prime or subcontractor will not be performing as per the Technical Proposal Volume
- Provide a comparative analysis between your experience and the effort required by the solicitation
- Demonstrate that there are no gaps in experience with regard to PBWS tasks
  - Corporate experience is evaluated not personnel experience
  - Where there is a gap, address a plan to compensate for the risk; personnel can be considered in risk mitigation plans

**** Draft RFP Pages 84-85***

Corporate Experience Assessment Approach

Subcontractor: ABC



Recency (yrs from proposal submittal

# of years of experience	<1	1-5	>5
<1	Yellow	Yellow	Red
1 to <5	Green	Green	Yellow
≥5	Blue	Green	Yellow

<u>Proposal Experience Summary (Table 4 page 84)</u> (for Prime and Each Major Subcontractor and JV/SLE team member):

- **Build a table to summarize information; color coding based on years of experience and recency of experience**
- **Provide supporting data that support the summary table, inclusive of information that demonstrates breadth and depth of experience**

**** Draft RFP Page 84***

Corporate Experience Evaluation Grading - Qualitative -

Assessment Of Corporate Experience (Gap Analysis)

↓

Positive and Negative Findings

↓

Experience Analysis of Findings as related to Future Performance
Impact caused by experience gaps; criticality, percentage of time, mitigating approaches

↓

Significant Positive and Negative Findings

↓

Confidence Assessment

↓

Confidence Assessment Rating

- Very Low
- Low
- Moderate
- High
- Very High

Note: Ratings are a continuum, each level providing a range

Corporate Experience
- Confidence Definitions -

Corporate Experience Confidence Assessment Rating: Confidence Assessment rating assignments reflect the Government's confidence that the Offeror will successfully perform the solicitation's requirements based on the Offeror's previous experience.

Rating	Description
Substantial Confidence	Based on the Offeror's recent/relevant experience record, the Government has a ***high expectation*** that the Offeror will successfully perform the required effort.
Satisfactory Confidence	Based on the Offeror's recent/relevant experience record, the Government has a ***reasonable expectation*** that the Offeror will successfully perform the required effort.
Limited Confidence	Based on the Offeror's recent/relevant experience record, the Government has a ***low expectation*** that the Offeror will successfully perform the required effort.
No Confidence	Based on the Offeror's recent/relevant experience record, the Government has ***no expectation*** that the Offeror will be able to successfully perform the required effort.

** Draft RFP Page 94*

Draft Section M Evaluation Factors
- Price -

- Task Order Price proposal will be evaluated to determine if it is
  - Complete, consistent and reasonable with respect to the offeror's technical approach
  - Reflects a clear understanding of the Task Order requirements
  - Contains no material imbalances

- The evaluated prices for the Task Orders will be the prices used in the Government's "best value" trade offs to select the awardees for the MAC as well as the Task Orders.

**** Draft RFP Page 92***

Draft Section M Evaluation Factors (Con't)
- Price -

- For the Sea-Based Requirement: The total evaluated price will be the sum of the Base and Option CLINs for Task Order One Sea-Based DDG Arleigh Burke Class Destroyer
  - This evaluated price will be used in selecting the awardees for the MAC and Task Order.

- For the Land-Based Requirement: The evaluated price used in selecting the awardees for the MAC will be the sum of the Task Order prices identified below.
  - The evaluated price used in selecting the awardee for a Task Order will only be the corresponding Task Order total price.

A. Task Order Two USMC Land Base 3 Afghanistan: The total price will be the sum of the Base and Option CLINs

B. Task Order Three USAF Land-Based Detachments 1&3 Afghanistan and Iraq: The total price will be the sum of the Base and Option CLINs

** Draft RFP Page 92*

Proposal Preparation
- Guidance -

- Demonstrate a **thorough understanding** of requirements and inherent risks
- Demonstrate sufficient **resources** to meet the requirements
- Support your statements with facts, analysis and substantiating data to illustrate that you have a **valid and practical solution** for all requirements
  - Substantiate, don't simply make claims
    - » Give us a reason to believe you; provide information to allow an independent assessment

Proposal Preparation
- Guidance -

- Structure your proposal in accordance with the Proposal Instructions
- Be consistent from Volume to Volume
- Provide clear and concise descriptions
  - Drawings & diagrams complement narrative, but don't replace it
- Help the evaluator quickly find what he/she needs
  - Is it clear?
  - Is it well organized?

Proposal Preparation
- Guidance -

- Be attentive to all parts of the RFP
  - Requirements, PBWSs
  - Terms and Conditions
  - Evaluation Criteria and Proposal Instructions
- A Cross Reference Matrix can be a good proposal development tool
- Make appropriate trade-offs to provide the very best value that you can offer
  - Pointing out strengths, risk reducers and associated benefits
  - Addressing risks with mitigating approaches
  - Showing proper balance between cost and technical benefits

Typical Proposal Shortfalls

- Proposal Instructions are not followed
  - Information not provided in the way it was requested
  - Too little information
  - Too much information
- Statements in the proposal are not well supported
- Proposals are not well organized
  - Does not follow Proposal Instructions structure and makes the evaluator hunt for the information
- Past Performance POCs are not current
- DUNS/CAGE Codes references do not match
- Deficiencies - preclude award
  - Information provided does not support claims of compliance
  - Proposal is non-compliant to the requirements
- Not signing RFP

Summary

- The Source Selection process will assure that your proposal will receive a fair and consistent evaluation and selection
- L&M is intended to help you provide us with your best value solution and instruct you in preparing a proposal that will facilitate our evaluation
- Keys to Developing a Good Proposal
  - Understand the RFP requirements
  - Understanding the Evaluation Criteria will help you know where to place emphasis in your proposal
  - Follow the Proposal Instructions – Provide material where requested, i.e., keep Past Performance and Experience material out of Technical Volume
- Ensure that your proposal
  - Helps the evaluator evaluate - don't make us have to guess or search for answers
  - Follows the exact numerical outline provided by Section L
  - Provides substantiation for what you propose – give us a reason to believe you

Bottom-Line

- Propose your best value solution, making the Technical and Price Trade-Offs that are in the best interest of the Government
- Propose a realistic proposal with a high performing team, providing an executable contract that is likely to perform as proposed
- Provide a proposal that helps the Government perform its independent analysis and provides high confidence in the proposed solution and contract performance plan

Technical Requirements/PBWS

Systems Engineer

System Requirements Land-Based & Sea-Based

- Since System is to provide Worldwide Support for Land-Based and Sea-Based operations, Two Performance Based Work Statements (PBWSs) have therefore been established:
  - One PBWS for Sea-Based Systems
  - One PBWS for Land-Based Systems
- Largely common, but with some very significant differences, driven by operational needs and user-requirements

Land- & Sea-Based Requirements PBWSs' Structure Outline

Requirement / PBWS Section
2.1 Air Vehicle
2.2 System Footprint / Mobility & Transportation
2.3 Hub or Hub-And-Spoke Operations
2.4 Ground Control Station (GCS)
2.5 Communications, Navigation, and Identification (CNI)
2.6 Data Products (EO & IR Cameras, Video & Still Images)
2.7 Automatic Identification System (AIS)
2.8 Recommended Best Practices

** Draft RFP Attachments (1) and (2)*

Significant Differences between Land- & Sea-Based Requirements

Sea-Based	Land-Based	Requirement / PBWS Section
X	X	2.1 Air Vehicle
X		Heavy Fuel Engine (HFE) – JP-5 per MIL-DTL-5624U
X	X	Max Altitude (Sea = 10,000' MSL, Land = 15,000' MSL)
X	X	2.2 System Footprint / Mobility & Transportation
X		Ship-Integration aboard DDG-51 (Flt-I)
	X	FOB Landing-Zone = 100mx100m, Unimproved
X	X	2.3 Hub or Hub-And-Spoke Operations
X	X	2.4 Ground Control Station (GCS)
X	X	2.5 Communications, Navigation, and Identification (CNI)
X	X	2.6 Data Products (EO & IR Cameras, Video & Still Images)
X	X	IR Sensor Capability (Sea = 6.5+, Land = 7.0+)
X		2.7 Automatic Identification System (AIS)
X	X	2.8 Recommended Best Practices

Blue=Sea-Based Only Red=Land-Based Only Black=Common

Air Vehicle (AV) External Lighting
PBWSs Section 2.1.2

- Night-Vision Device (NVD) compatible Anti-Collision Lighting required:
  - 3+ mile visibility
  - Selectable from GCS
- Visible Anti-Collision lighting not required
- No Nav-Lights required

Air Vehicle (AV) Performance
Sea-Based Systems -- PBWS Section 2.1.5

- **Service Ceiling: 10K' MSL**
- **Endurance:**
  - **12 hr (10hrs video + 2 x 1hr transits)**
  - **20 hr Objective (18hrs video + 2 x 1hr transits)**
- **Heavy Fuel Engine (HFE) shall operate on gov't-provided JP-5**
- **OAT: 0 – 120° F**

Airspeed	Minimum 50 KTAS[1]		
Service Ceiling[2]	Minimum 10,000 Feet MSL[3]		
Takeoff Wind Limits	Maximum Headwind 30 Knots	Crosswind 10 Knots	Maximum Gust 15 Knots
Takeoff, Operations and Recovery	Temperature Range 0 to +120F	Density Altitude (DA) 4800 Feet for Takeoff and Recovery	Rainfall Maximum 0.25 Inches/Hour
Endurance	Threshold: 10 Hours Continuous Sensor Data Objective: 18 Hours Continuous Sensor Data		

Table 1 Air Vehicle Performance Specifications

Air Vehicle (AV) Performance
Land-Based Systems -- PBWS Section 2.1.5

- **Service Ceiling: 15K' MSL**
- **Endurance:**
  - **12 hr (10hrs video + 2 x 1hr transits)**
  - **20 hr Objective (18hrs video + 2 x 1hr transits)**
- **OAT: -20 – 140° F**

Air Vehicle Performance Specifications				
Airspeed	Minimum 50 KTAS[1]			
Service Ceiling[2]	Minimum 15,000 Feet MSL[3]			
Take Off Wind Limits	Maximum Headwind 30 Knots	Crosswind 10 Knots	Maximum Gust 15 Knots	
Takeoff, Operations and Recovery	Temperature Range -20 to +140F	95% Relative Humidity	Density Altitude 6000 Feet for Takeoff and Recovery	Rainfall Maximum 0.25 Inches/Hour
Takeoff/ Recovery Area	100 x 100 Meter Area Surrounded by Obstacles up to 50 Feet tall, Sloping up to 4 degrees, with surface obstacles/ruts up to 1 foot			
Endurance	Threshold: 10 Hours of Continuous Sensor Data Objective: 18 Hours of Continuous Sensor Data			

Launch & Recovery Capabilities
PBWSs Section 2.1

- Launch
  - Relative Winds:
    - Headwinds: 30 kt headwinds
    - 10 kt / 15 kt gusts
  - Density Altitude (DA):
    - Sea-Based: 4,800’
    - Land-Based: 6,000’
  - 30 Minutes Time-to-Launch from a system in Active Stand-By status
  - Clear deck for Helo-Ops within 30 minutes

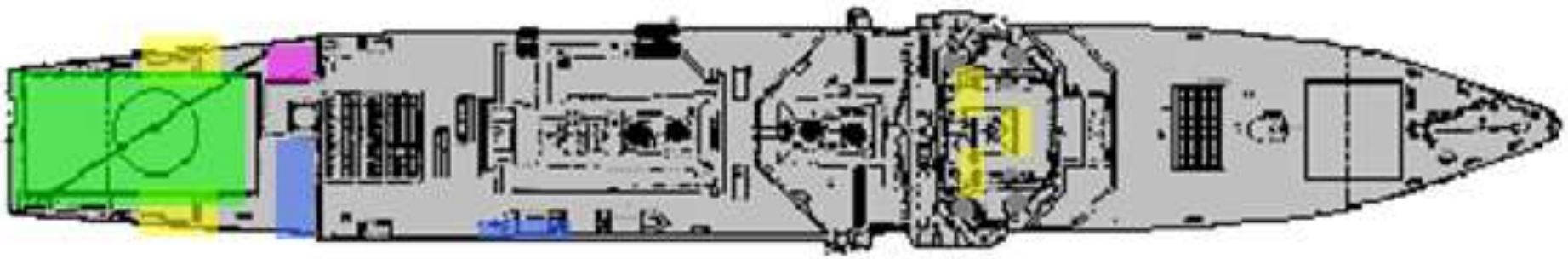
Launch & Recovery Capabilities
Sea-Based Systems Only – PBWS 2.1.6

- Capable of operations in Sea-State 4:
  - Defined as 4 – 8' seas resulting in following ship-motion parameters:

Parameter	Estimated Maximum
Pitch Attitude (degrees)	1
Roll Attitude (degrees)	3
Pitch Rate (degrees /second)	1
Roll Rate (degrees /second)	2
Lateral Displacement (feet)	1
Vertical Displacement (feet)	2
Lateral Acceleration (feet/second^2)	2
Vertical Acceleration (feet/second^2)	7

Sea-Based Footprint
PBWS Section 2.1.6, 2.2.1, & Appendices 1-4

- Arleigh Burke Class DDG-51 (Flight-I, No Hangars) Used as Constraint for Evaluation Purposes
- Plan-View Drawings Provided to Offerors for Ship-Integration Purposes:
  - Appendix 1: Deck Storage / Launch & Recovery
  - Appendix 2: CastleWay Storage
  - Appendix 3: CIC Annex / Ground Control Station
  - Appendix 4: Torpedo Magazine / UAV Workshop

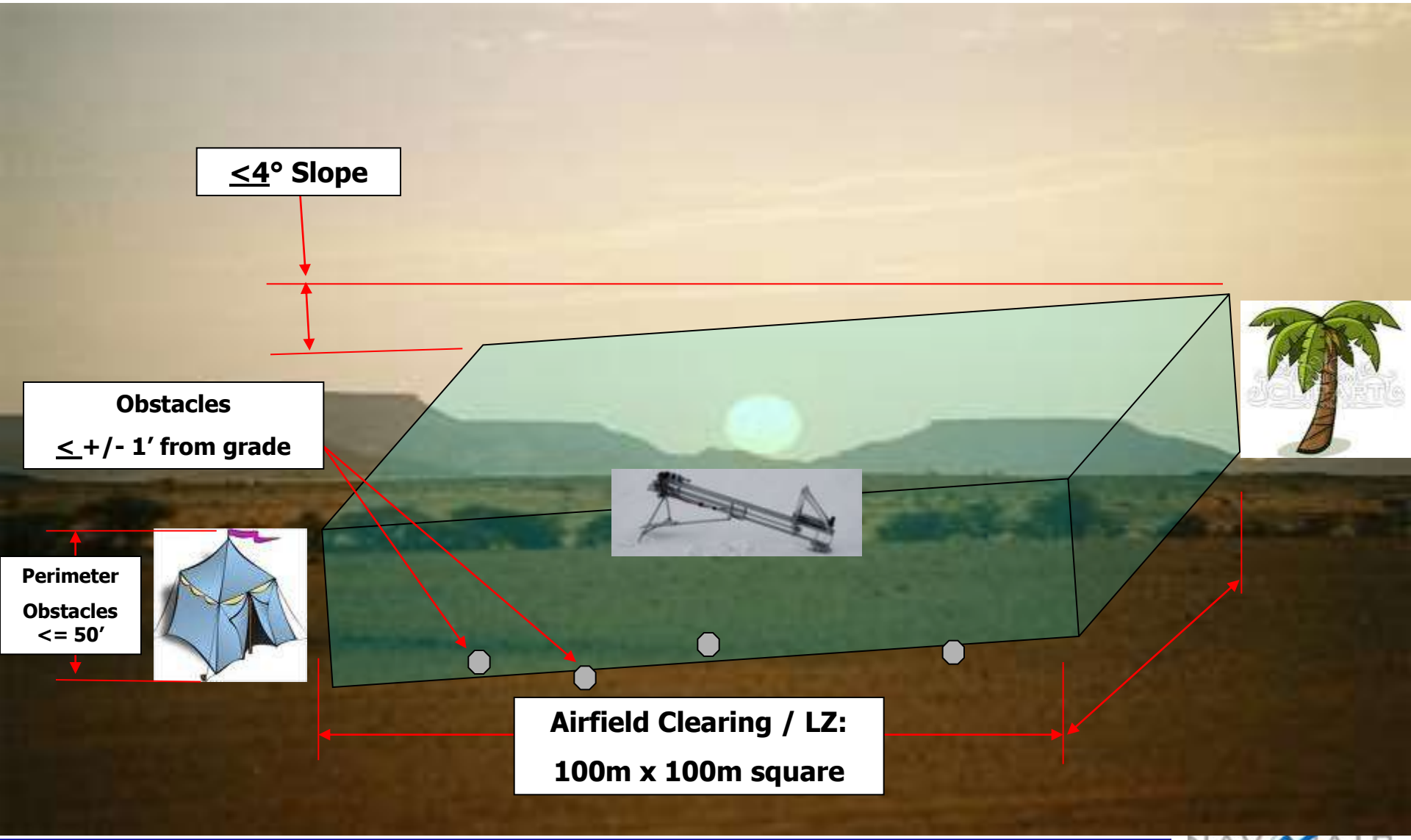


Mobility / Transportability
Sea-Based Systems PBWS 2.2.2

- AV subsystems shall be air-transportable via:
  - H-60

    and
  - C-130

Land-Based Footprint -- Primitive / Unimproved LZ
PBWS 2.1.5 & Table 1



Mobility / Transportability
Land-Based Systems – PBWS Section 2.2

- UAS complete systems shall be air-transportable via:
  - CH-53

    and

  - C-130
- UAS shall be deployable / packable within 12 hours

Hub & Spoke Operational Model
PBWS Section 2.3

- A hub and spoke operational model has the hub as the center of operations and the spoke as the downrange extension which allows the system to continue to operate at a distance from the central hub.

- The HUB is defined as a location wherein the contractor shall be responsible for <u>all activities</u> necessary for UAS operations, including but not limited to:
  - Administration
  - Mission planning
  - AV launch and recovery
  - AV Command & Control (C2)
  - Networked data dissemination
  - Maintenance and logistics

- The SPOKE has the identical C2 capabilities of the hub
  - The spoke lacks the <u>capabilities of AV launch and recovery</u>, <u>networked data dissemination</u>, and <u>AV maintenance/logistics support</u>.
  - The spoke will participate in the administration and mission planning processes, but will not have the same stand-alone capabilities as the hub.

STANAG 4586

UAS Levels of Interoperability

- Level 1: Indirect receipt/transmission of UAV related data and metadata.
- Level 2: Direct receipt/transmission of UAV related data and metadata.
- Level 3: Control and monitoring of the UAV payload, not the AV.
- Level 4: Control and monitoring of the UAV without launch and recovery.
- Level 5: Control and monitoring of the UAV including launch and recovery.

Spoke Capability

Hub Capability

Hub & Spoke Operational Model
PBWS Section 2.3

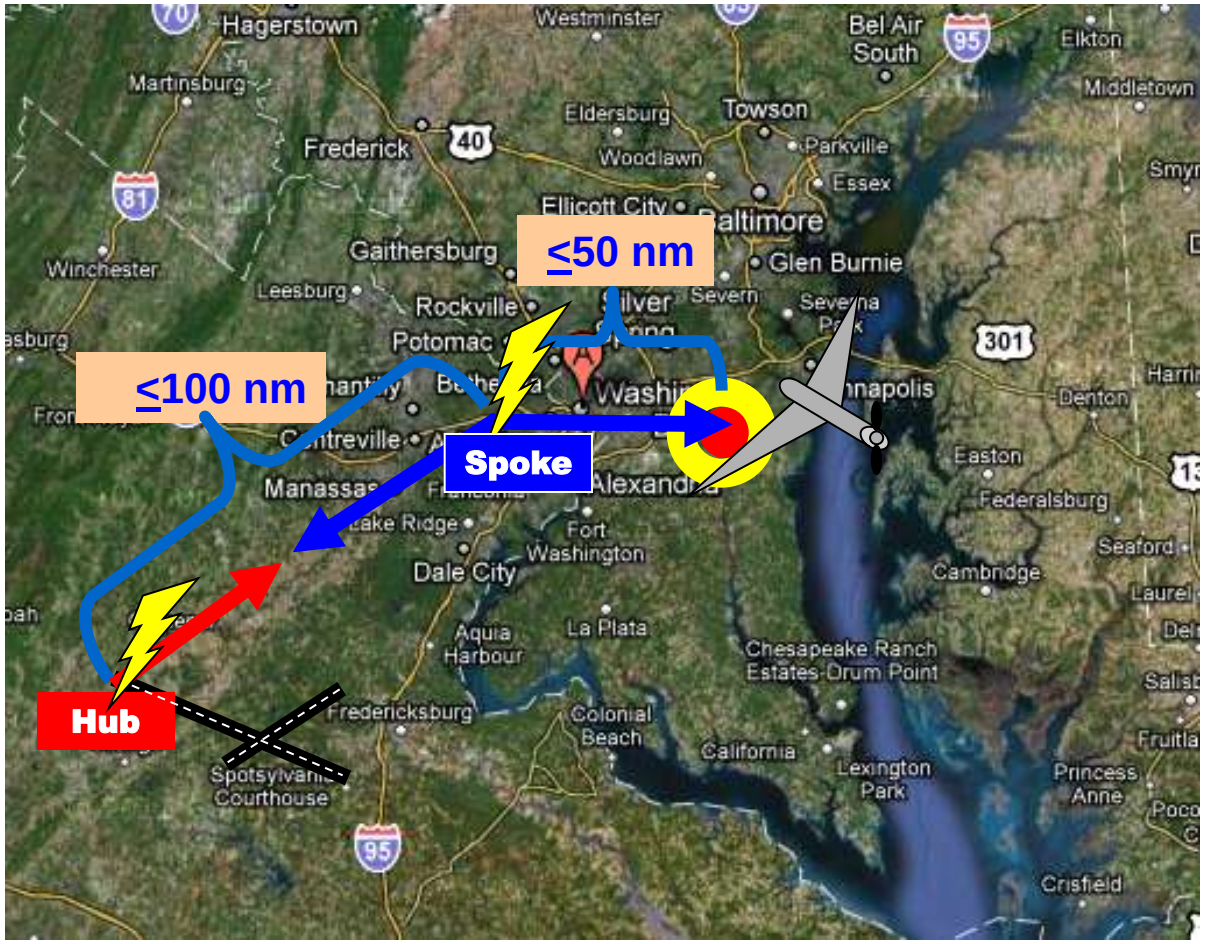
- **Sea-Based deployments shall generally consist of a single hub, but shall be capable of hub & spoke operations**

- **Land-Based deployments may consist of multiple hubs and multiple spokes.**

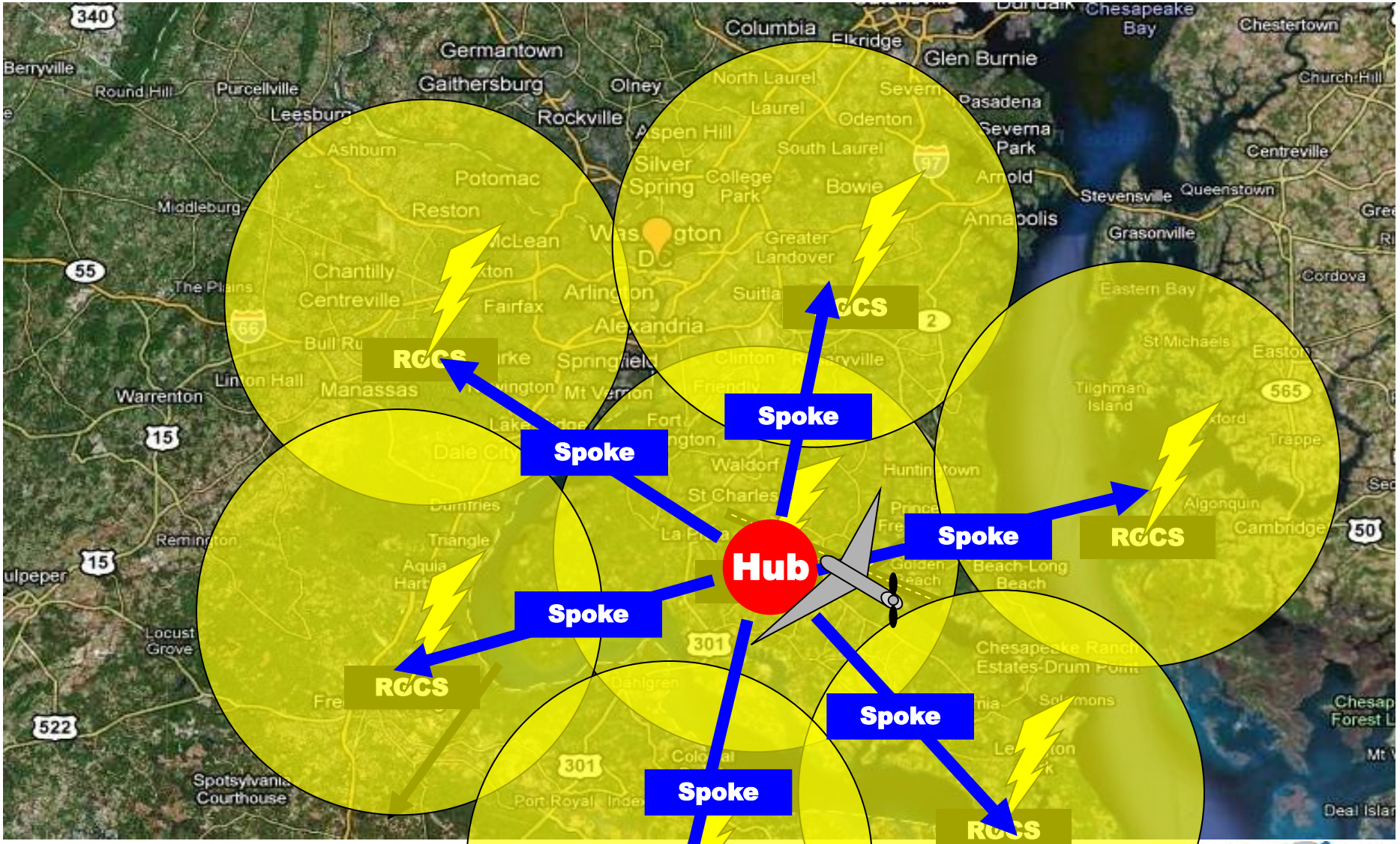
- **Spokes may be defined within the respective Task-Orders (TOs)**
  - **Discussion/input desired from Industry**

DODAF OV-1 High-Level Operational Concept Graphic
Daisy-Chain Hub & Spoke Model for Extended-Range Operations

- **Air Vehicle (AV) is launched and recovered at primary Ground Control Station (GCS)/Hub**
- **Control is passed-on to secondary GCS (Spoke) at the ~≤50nm point**
- **Net range btwn Hub & Spoke is ≤100nm**
- **Net range to final target is ≤150nm**
- **Mission-duration / AV endurance remains IAW original mission specs**
- **AV endurance ≥ (10 hrs + (Airspeed (kts)/50nm LOS Horizon))**
- **~12 hrs**
- **Gov't recognizes that available hours of video on a remote (≥50nm range from GCS) target shall be reduced below that for a proximate (<50nm range from GCS) target**



DODAF OV-1 High-Level Operational Concept Graphic
Daisy-Chain Hub & Spoke Model for Extended-Range Operations
Operational Use-Case – Coverage Area



GCS Capabilities
PBWSs Section 2.4

- Command & Control (C2):
  - 50 nm range, LOS permitting
  - LOL protocols
  - 100% “Positive Control”
  - STANAG Level 5 @ Hub / Level 4 @ Spoke

- Support of Low-to-High transmission of Sensor Data-Products (Refer to briefing on IA / CDS)

- For Land-Based systems, all power shall be provided by Contractors, although Diesel-fuel will be gov’t provided

- Same Human-Interface for both Hub & Spoke

Definition of UAV Positive Control
Ref. OPNAVINST 3710.7U, Chapter 14

- "The UAS shall provide for a qualified operator to be in control of the UAV, at any time that intent-for-flight exists (intent-for-flight shall be as defined within the respective UAS' operating manual / Standard Operating Procedures (SOP)).
  - The operator shall be capable of expeditiously responding to system malfunctions, emergencies and Air Traffic Control (ATC) direction. (PBWS Para 2.4.1)
  - **A UAS with an autopilot or programmable mode capability can be considered under control with such mode engaged provided the responsible and qualified operator maintains continuous situational awareness, and can alter the UAV's airspeed, altitude and heading by their specific actions."**

- **Note that NAVAIR has historically interpreted this as meaning one operator / GCS per Air-Vehicle**

Comm, Nav, & ID
PBWSs Section 2.5

- Only Acceptable Radios:
  - L-3 Bandit
  - L-3 Vortex

Note specific direction

- 360° hemispherical coverage
- Comm Spectrum:
  - Flexible / tailorable freqs
    - C2: L, C, and/or S bands
    - Sensor Data-Products: L and C bands
  - Specific bands/freqs to be directed within respective TOs
- Encryption of C2 Signals:
  - FIPS-197 compliant Advanced Encryption Standard (AES) encryption on the command and control links
- GPS:
  - SAASM required
- Identification:
  - Mode 3 transponder only (not 3C, no altitude info required)

Payloads

PBWSs Sections 2.1.6 (Land), 2.1.7/2.7 (Sea), and 2.6

- Full-Motion Video (FMV) cameras
  - Electro-Optic (EO)
  - Infra-Red (IR)

- Target-tracking capability

- Payload Modularity: AV shall accept modular payloads, which are those that can be replaced or interchanged with the previously-installed EO or IR payload(s) within two hours or less (elapsed time).

Camera/Sensor Outputs

Video- & Still-Formats -- PBWSs Section 2.6

- Full-Motion Video (FMV):
  - Video Output IAW Motion Imagery Standards Profile (MISP) MPEG-2, and/or H.264 format FMV, through an MPEG 2 transport stream.
    - Standard definition motion imagery is Motion Imagery System Matrix (MISM) Level 3 compliant to MISP recommended practice 9720d.
    - High definition motion imagery is MISM Level 9 compliant to MISP recommended practice 9720b.
- Still Imagery: EO / IR stills to be in NITF 2.1 format.

Video Quality Requirements

	Sea	Land
User-Articulated Operational Requirements	**Fleet Forces Command:** **"As good as we now have."**	**USMC: "Ability to differentiate between a human with a rifle and a human with a shovel"** **RO/PMA263: "No degradation of current level of performance."**
Measurable Metric (As Derived/ Developed by Engineering)	**EO: Calculated NIIRS = 7.5+ per SSCAM model *** **IR: Calculated NIIRS = 6.5+ per NVTherm model**	**EO: Calculated NIIRS = 7.5+ per SSCAM model** **IR: Calculated NIIRS = 7.0+ per NVTherm model**
Still-shots:	**No degradation in quality relative to FMV stream.**	

- SSCam and NVTherm IP are industry-standard* software models that predict operational performance of optical sensor systems.

* National Image Interpretability Rating Scale (NIIRS)

Sensor Outputs – Metadata
PBWSs Sections 2.1.6 / 2.1.7 & 2.6

- Metadata to be in compliance with MISP Minimum Metadata Set Standard 0902, with all digital FMV.
  - IAW MISP Standard 102 “Security Metadata Universal and Local Sets for Digital Motion Imagery.”
  - Any metadata not covered in MISP 902 or 102 shall be IAW MISP Standard 0601 “UAS Datalink Local Metadata Set.”

Sensor Outputs – Other Parameters

PBWSs Sections 2.1.6 (Land) / 2.1.7 (Sea) & 2.6

- **SPOI:**
  - **20 meters Circular Error (CE), at accuracy of 90%, and from an altitude of 3000 ft AGL at a 45 degree slant range, within 60 seconds.**

- **Encryption of Sensor Data-Products:**
  - **Use of mandated radio systems (L-3 Bandit / Vortex) support required encryption of sensor data-products**
  - **Refer to briefing on IA / CDS**

Cross Domain Solution (CDS) Data Parameters & Interface

PBWSs Section 2.6

- Cat 6a Cable
- FMV in MPEG-2 / H.264 AVC4
- User Diagram Protocol
- KLV Metadata
- Configurable port for GCS-output data / signals

Automatic Interrogation System (AIS) Capability

Sea-Based PBWS Section 2.7

- AIS relay compatible with TransView 32 (TV32) with a range of 60 nm (Sea-Based only)
  - NOT considered sensor/payload for the purposes of PBWS 2.1.7.1

Recommended Best Practices

Sea-Based Section 2.8 / Land-Based Section 2.7

- **Provided for Guidance Only – will NOT be evaluated.**

- **MIL-STD-1472F; Human Engineering, Design Criteria for Military Systems, Equipment, and Facilities**
  - **2-man lift criteria, etc.**

- **MIL-STD-810G; DOD Test Method Standard for Environmental Engineering Considerations and Laboratory Tests**
  - **Salt-fog testing**
  - **Dust-resistance**
  - **etc.**

Electromagnetic Environmental Effects (E^3)

Both PBWSs – Section 4.1.1.2

- **Data requirements per CDRL A002, documenting the following:**
  - Electromagnetic Environmental Effects (E3) and ElectroMagnetic Interference (EMI) data to demonstrate their design practices pertinent to MIL-STD-464A requirements
  - Intra-system ElectroMagnetic Compatibility (EMC) between AV, GCS, and CNI and individual subsystems/equipment
  - Compatibility with external Radio-Frequency (RF) ElectroMagnetic Environment (EME)
  - Compatibility with external RF EME or internal EME, as applicable
  - GCS compatibility with internal EME
  - No electromagnetic radiation hazards to personnel, ordnance, or fuel
  - No electrostatic discharge hazards to personnel, ordnance, fuel, electronics or the proper operation of radio receivers
- **These considerations are central to Flight Clearance approval; additional Government testing at the system / subsystem level may be required.**

Section L – Technical Systems Capabilities

Systems Engineer

Section L-to-PBWS Cross Reference Matrix

Section L – Proposal Instructions	Land-Based PBWS	Sea-Based PBWS
2.0 Vol. 2 Technical	2.0	2.0
2.1 Book 1 - Sea Based UAS		2.0
2.1.1 System Capabilities		2.0
2.1.1.1 General System Capabilities		2.0
2.1.1.2 Continuous Video Electro-Optic (EO) Sensor Data Capability		2.1.7, 2.6
2.1.1.3 Continuous Video Infrared (IR) Sensor Data Capability		2.1.7,2.6
2.1.1.4 Integration of EO & IR sensors into the Airframe		2.1.7
2.1.1.5 Air Vehicle Performance		2.1.5
2.1.1.6 Powerplant		2.1.9
2.1.1.7 GCS and Datalink Capabilities		2.4, 2.5
2.1.1.8 Ship-Integration / Physical Footprint		2.2, 2.4
2.1.1.9 Launch and Recovery Capability		2.1.6, 2.1.10
2.1.1.10 ElectroMagnetic Compatibility (EMC)		4.1.1.2

Section L-to-PBWS Cross Reference Matrix

Section L – Proposal Instructions	Land-Based PBWS	Sea-Based PBWS
2.1.2 Task Order Capabilities		4.2
2.1.2.1 Task Order System Equipment required		
2.1.2.2 Deployed Personnel		4.4
2.1.2.3 Scheduling		4.2.3, 4.2.4
2.1.2.3.1 Schedule/Lead times (Pre-deployment phase)		4.1, 4.1.1.1
2.1.2.3.2 Typical Deployment Daily Operations		4.2, 4.2.5
2.1.3 Small Business Utilization Strategy		
2.2 Book 2 - Land-Based UAS	2.0	
2.2.1 System Capabilities	2.0	
2.2.1.1 General System Capabilities	2.0	
2.2.1.2 Continuous Video Electro-Optic (EO) Sensor Data Capability	2.1.6, 2.6	

Section L-to-PBWS Cross Reference Matrix

Section L – Proposal Instructions	Land-Based PBWS	Sea-Based PBWS
2.2.1.3 Continuous Video InfraRed (IR) Sensor Data Capability	2.1.6, 2.6	
2.2.1.4 Integration of EO & IR sensors into the Airframe	2.1.6.1	
2.2.1.5 Air Vehicle Performance	2.1.5	
2.2.1.6 Powerplant	4.2.7	
2.2.1.7 GCS and Datalink Capabilities	2.4, 2.5, 4.2.6	
2.2.1.8 Physical Footprint	2.1.5, 2.2.1, 2.4.6	
2.2.1.9 Launch and Recovery Capability	2.1.5, 2.1.8	
2.2.1.10 ElectroMagnetic Compatibility (EMC)	4.1.1.2	
2.2.2A Task Order Capabilities – USMC LD-3	4.2	
2.2.2.1A Task Order System Equipment Required		
2.2.2.2A Personnel	4.4	
2.2.2.3A Scheduling	4.2.3, 4.2.4	
2.2.2.3.1A Schedule/Lead times (Pre-deployment phase)	4.1, 4.1.1.1	

Section L-to-PBWS Cross Reference Matrix

Section L – Proposal Instructions	Land-Based PBWS	Sea-Based PBWS
2.2.2.3.2A Daily Operations	4.2, 4.2.5, 2.3	
2.2.2B Task Order Capabilities – USAF DET 1&3	4.2	
2.2.2.2B Deployed Personnel	4.4	
2.2.2.3B Scheduling	4.2.3, 4.2.4	
2.2.2.3.1B Schedule/Lead times (Pre-deployment phase)	4.1, 4.1.1.1,	
2.2.2.3.2B Daily Operations	4.2, 4.2.5	
2.2.3 Small Business Utilization Strategy		

Land- & Sea-Based Section L - Technical

Capabilities	Section L for Sea, Book 1	Section L for Land, Book 2
Overarching System Capabilities	2.1.1.1	2.2.1.1
EO Video	2.1.1.2	2.2.1.2
IR Video	2.1.1.3	2.2.1.3
Multiple / Modular Sensors / Airframe Integration *	**2.1.1.4**	**2.2.1.4**
Air Vehicle *	**2.1.1.5**	**2.2.1.5**
PowerPlant	2.1.1.6	2.2.1.6
GCS & Datalink	2.1.1.7	2.2.1.7
Ship Integration / Physical Footprint	2.1.1.8	2.2.1.8
Launch & Recovery	2.1.1.9	2.2.1.9
Electromagnetic Compatibility	2.1.1.10	2.2.1.10
Task Order Capabilities	2.1.2	2.2.2

* Includes objectives

General Guidance on Demonstration Methods – 2.0(c)

1. **Primary preferred means of demonstration is documented operational experience in a relevant environment (if applicable).**
2. **Secondary preferred means of demonstration is independent testing/evaluation in a non-operational (lab) environment – preferably at the system-level, alternatively at the subsystem/component–level.**
3. **Tertiary means of demonstration is by simulation, modeling, or other analytical method(s) – including demonstration/documentation employment of generally-accepted design practices throughout the system(s).**

- The method of demonstration is at the discretion of the Offeror. However, Offerors are advised that risk may be assessed based on the level of confidence that the Offeror provides the Government with its substantiating information/methodology.

**** Draft RFP pages 64-65***

General System Capabilities
Sea - 2.1.1.1, Land - 2.2.1.1

- **Overarching System Description: Identify and describe:**
  - » **Unmanned Aircraft System (UAS) - Subsystems and major components**
  - » **Approach and capability to perform TOs**
    - **Include maintenance / servicing of systems**
    - **Include manning, production capacity, subcontractor capacities, over multiple theatres of operation.**
    - **Include availability of the proposed UASs in terms of cleared-for-flight status, capability, and quantity-available**
  - » **Describe the technical and operational maturity of the system by providing documented operational history of relevant service performed by this UAS.**
    - **Include cumulative operating hours, operating environments, reliability & maintainability, manufacturing/production capabilities, and areas of programmatic risk relating to readiness for deployment into combat theaters.**
  - » **All information provided shall be relevant to the system configuration being proposed.**
- ***Technical Annex is not applicable to this paragraph.***

**** Draft RFP pages 65 & 71***

Continuous Video

Electro-Optic (EO / Day): Sea - 2.1.1.2, Land – 2.2.1.2

- **Demonstrate your capability to perform the service of obtaining continuous video sensor data.**
  - ***Sea: Annex S1 may be used to provide supporting data, as necessary.***
  - ***Land: Annex L1 may be used to provide supporting data, as necessary.***

- **Calculate and provide the SSCam rating of the proposed EO sensor.**
  - **Sea: Attachment (8) Datasheet 1 shall be used to provide EO**
  - ***Sensor modeling/assessment and shall be included in Annex S1*.**
  - **Land: Attachment (8) Datasheet 1 shall be used to provide EO**
  - ***Sensor modeling/assessment and shall be included in Annex L1.***

- **Provide substantiation for the information provided.**

**** Draft RFP pages 65 & 71***

Continuous Video

Infra-Red (IR / Night): Sea - 2.1.1.3, Land – 2.2.1.3

- **Demonstrate your capability to perform the service of obtaining continuous video sensor data.**
  - ***Sea: Annex S2 may be used to provide supporting data, as necessary.***
  - ***Land: Annex L2 may be used to provide supporting data, as necessary.***

- **Calculate and provide the NVTherm IP rating of the proposed IR sensor.**
  - **Sea: Attachment (9) Datasheet 2 shall be used to provide IR *Sensor modeling/assessment and shall be included in Annex S2.***
  - **Land: Attachment (9) Datasheet 2 shall be used to provide IR *Sensor modeling/assessment and shall be included in Annex L2.***

- **Provide substantiation for the information provided.**

**** Draft RFP pages 65 & 73***

Video Quality Assessment Numerical Criteria

	Sea	Land
User-Articulated Operational Requirements	Fleet Forces Command: "As good as we now have."	USMC: "Ability to differentiate between a human with a rifle and a human with a shovel" RO/PMA263: "No degradation of current level of performance."
Measurable Metric (As Derived/ Developed by Engineering)	EO: Calculated NIIRS = 7.5+ per SSCAM model IR: Calculated NIIRS = 6.5+ per NVTherm model	EO: Calculated NIIRS = 7.5+ per SSCAM model * IR: Calculated NIIRS = 7.0+ per NVTherm model *
Evaluation Method	Mathematical calculation of theoretical NIIRS-rating using system's mechanical parameters	Mathematical calculation of theoretical NIIRS-rating using system's mechanical parameters

- SSCam and NVTherm IP are industry-standard* software models that predict operational performance of optical sensor systems.

**** Draft RFP pages 65, 71, & 73***

* National Image Interpretability Rating Scale (NIIRS)

Video Quality Risk Assessment 2.2.1.2 & 2.2.1.3

For Land-Based Systems ONLY

	Sea	Land
Risk Evaluation Method	No additional risk parameters.	Double-blind end-user assessment of sample video products using a gov't-defined scenario (shovel/rifle)

- Sample videos will be assessed ONLY for Land-Based systems
  - System shall be able to "…identify a man, but also identify what that individual is carrying, i.e., shovel, RPG or rifle." (per USMC Statement of Needs dated 07JUN2010).

**** Draft RFP pages 71-75***

Video Quality Risk Assessment

For Land-Based Systems ONLY 2.2.1.2 & 2.2.1.3

- Video-Sample Operational Assessment will be used to validate the SSCAM and NVTherm results for Land-Based systems:
  - ≤7 minute sample videos delivered on Vendor's HDD:
    - Human with Rifle – Day
    - Human with Shovel – Day
    - Human with Rifle – Night
    - Human with Shovel – Night
  - Video will be assessed via Gov't hardware (Videoscout MC2) in a double-blind evaluation
    - No identifying information on video or HDD
- As a result of these assessments, the risk-levels of the Offeror's optical-sensor systems will be assessed
  - Evaluators with operational experience

** Draft RFP pages 71-75*

Multiple / Modular Sensors Payload-Airframe Integration Sea - 2.1.1.4, Land - 2.2.1.4

- **Describe and demonstrate, as a minimum, the threshold requirement of non-concurrent integration of the EO and IR sensor-payloads into the Air Vehicle(s) (AVs) and the capability of accepting modular payloads.**

  - **"Modular" payloads are not predefined by weight/volume/power/etc. Rather, they are defined by ability for Offerers' personnel to swap them out in ≤2 hours**

  - **Note that simultaneous carriage of multiple payloads/sensors is an objective.**

  - ***Annexes S3 (Sea) and L3 (Land) may be used to provide supporting data, as necessary.***

**** Draft RFP pages 66 & 76***

Air Vehicle (AV) Performance
Sea - 2.1.1.5, Land - 2.2.1.5

- **Demonstrate the AV's performance capabilities, as follows:**
  - **a. Service ceiling.**
  - **b. Maximum density altitude at which the Air Vehicle can take-off and land with a full-fuel load.**
  - **c. Maximum airspeed.**
  - **d. Maximum time-over-target considering time to transit to and from the target-area at 50 nm operational radius.**
    - » **Note that this continuous video time-over-target is an objective of 18 hours.**
    - » **Of course, Powerplant performance (see next slide) is a key input to each of the AV performance parameters.**

- ***Annex S4/L4 may be used to provide supporting data, as necessary.***

** Draft RFP pages 66 & 76*

Powerplant Performance

Sea - 2.1.1.6, Land - 2.2.1.6

- Propulsion system description
- Propulsion system performance characteristics
- Demonstration of system maturity
  - For Heavy Fuel Engines Only
- Propulsion system development, testing and operational history
  - For Heavy Fuel Engines Only
- Documentation of propulsion system reliability.

  - *Annex S5 / L5 may be used to provide supporting data, as necessary.*

** Draft RFP pages 66-67 & 76-77*

GCS & Datalink
Sea -2.1.1.7, Land – 2.2.1.7

- **Describe detailed design-approach of both air- and ground-based datalink segments**
  - **Including both primary and backup systems**
  - **Address AV C2, payload control, and payload data-management**
- **Describe functional allocation of data quality requirements**
- **Describe & quantify cryptographic error propagation on data quality**
- **Describe link budgets**

  - ***Annexes S6 / L6 may be used to provide supporting data, as necessary.***

**** Draft RFP pages 67 & 77***

Ship-Integration, 2.1.1.8

- **Describe and demonstrate the complete system's physical footprint and ship integration aboard the DDG-51 Arleigh Burke Class Flight I**
  - **Primary Scenario: Torpedo Magazine available as UAV Workshop.**
  - **Alternative Scenario: Torpedo Magazine is not available.**
- **Describe and demonstrate shipboard power requirements, broken-down by type (voltage, current, connector, etc.), UAS subsystem requiring the power, and shipboard location.**
- **Describe and demonstrate Data-Communications / Network Interfaces -- including cable-runs and band-widths.**
  - ***Annex L7 may be used to provide supporting data, as necessary.***

**** Draft RFP page 68***

Physical Footprint, 2.2.1.8

- **Describe and demonstrate the system's physical footprint in accordance with the Land-Based PBWS, Attachment (2), Table 1.**
  - **100m x 100m LZ**
  - ***Annex L7 may be used to provide supporting data, as necessary.***

** Draft RFP page 77*

Launch & Recovery Capability
Sea-Based Systems – 2.1.1.9

- **Provide a general description of the launch and recovery systems.**
- **Demonstrate capability to launch & recover AVs from Burke (Flight I) class flight deck.**
  - **Without degrading any ship capabilities, including Air-Ops (when stowed).**
  - **Sea-State 4, as defined within PBWS.**
- **Demonstrate time for a UAS to clear a flight-deck and make it available for helicopter operations.**
  - ***Annex S8 may be used to provide supporting data, as necessary.***

** Draft RFP page 68*

Launch & Recovery Capability
Land-Based Systems – 2.2.1.9

- **Provide a general description of the launch and recovery systems.**
- **Demonstrate capability to launch and recover AVs from the area/environment.**
- **Demonstrate capability to operate in less than 30 minutes (from a system in active/stand-by status).**
- **Demonstrate capability to set-up/pack-up within 12 hours.**

- ***Annex L8 may be used to provide supporting data, as necessary.***

**** Draft RFP page 77***

Electromagnetic Compatibility

Sea – 2.1.1.10 / Land - 2.2.1.10

- **Describe plans/strategy for compliance with OPNAV Instruction 2400.20F, Electromagnetic Environmental Effects (E3) and Spectrum Supportability Policy and Procedures.**
- **Describe and demonstrate the following:**
  - **ElectroMagnetic Compatibility (EMC) - Safety Of Flight (SOF)**
  - **UAV compatibility with its external Radio-Frequency (RF) ElectroMagnetic Environment (EME).**
  - **UAS CNI equipment compatibility with its external RF EME or internal EME, as applicable.**
  - **UAS GCS compatibility with the internal EME.**
  - **Avoidance or mitigation of electromagnetic radiation hazard to personnel, ordnance, or fuel.**
  - **Avoidance or mitigation of ElectroStatic Discharge (ESD) hazards.**
  - ***Annexes S9/L9 may be used to provide supporting data, as necessary.***

**** Draft RFP pages 68 & 78***

Objective Requirements Summary

- Up to 18 hrs Continuous On-Station Sensor-Data
- Dual Simultaneous Sensor Carriage
  - Both EO & IR
- Dual Simultaneous Sensor Carriage
  - Optical camera (either EO or IR)

    plus
  - Additional modular payload TBD (NOT including AIS)

Section L – Technical
Task Order Capabilities

PMA-263 ISR Team

Section L
Task Order Capabilities – Sea Based

2.1.2 Provide the information in this section for the Attachment (4) DDG Arleigh Burke Class Destroyer Task Order One. In responding to this section, assume all options are exercised, use of maximum monthly sensor levels of support, and use the timelines identified in the TO, Section F. Assume Task Order award as 1 February 2012.

2.1.2.1 Task Order System Equipment Required
UAS quantity, spares, operational floats (reachback)

2.1.2.2 Deployed Personnel – number & qualifications (Attachment (10))

2.1.2.3 Scheduling - For evaluation purposes, assume the deployment schedule specified in Section F of Attachment (4) Task Order One, Sea-Based DDG Arleigh Burke Class Destroyer. State whether or not the Offeror is ready to perform upon submittal of this proposal. If not, identify the time needed and the actions required.

Revisions/Clarifications to 2.1.2 to further clarify requirements are forthcoming

** Draft RFP page 69*

Attachment 10 Example

ISR Services Task Order Deployed Staffing Plan					
Title	**Number of Personnel**	**Employer**	**Employment Status**	**Description of Duties**	**Certifications/Training/Other Qualifications**
Site Lead	1	Big UAV World	Current	Primary POC with GSR	
UAV Pilot	5	Big UAV World	Current	Controls UAV during flight operations and controls data feed via GCS.	
UAV Pilot	6	Joe's Pilot Service	Contingent	Controls UAV during flight operations and controls data feed via GCS.	
Logistician	1	TBD	Vacant	Responsible for coordination of equipment and spares	
Maintainers	2	Big UAV World	Current	Maintains UAVs, launchers and support equipment	
Maintainers	2	Fix It Guys	Current	Maintains UAVs, launchers and support equipment	
UAV Pilot/Maintainer	1	Joe's Pilot Service	Current	Maintains UAVs, launchers and support equipment and available back-up pilot	

Section L
Task Order Capabilities – Sea Based

2.1.2.3.1 Schedule/Lead times (Pre-deployment phase) Describe your schedule with necessary lead times to accomplish the following:

a. Hardware/equipment manufacturing
b. Category 3 Flight Clearances and Authority to Operate
c. Ship integration
d. Pre-Deployment Logistical preparations, such as SOPs,
e. Obtaining proper deployment clearances (i.e. immunizations, passports, visas)

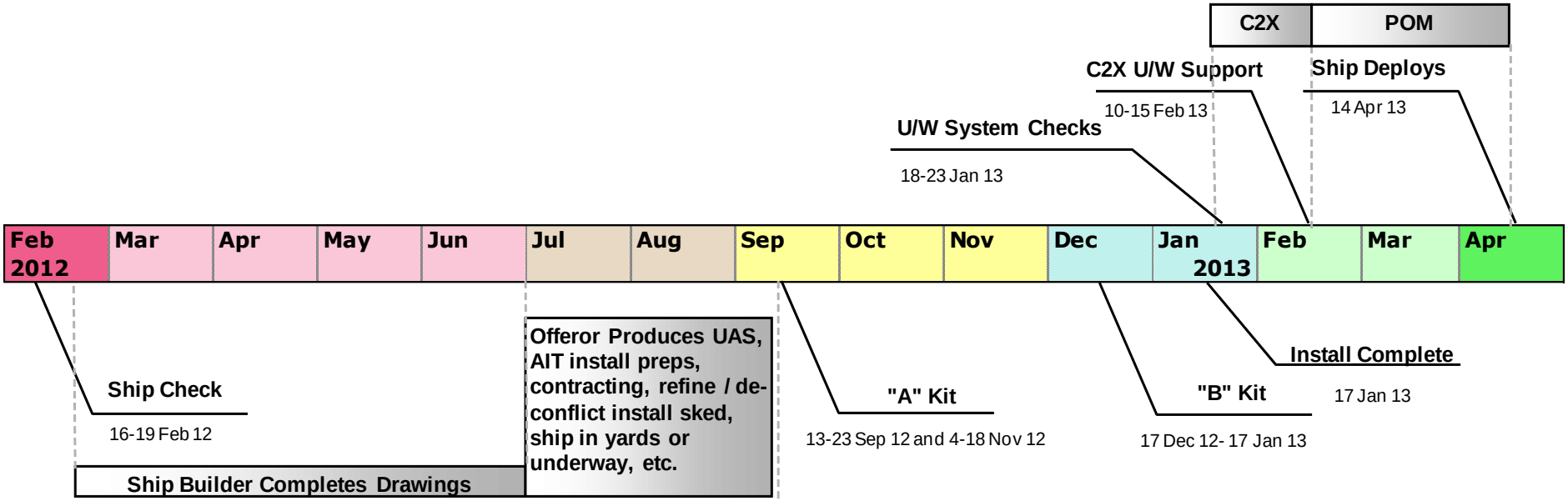
2.1.2.3.2 Typical Deployment Daily Operations - Describe your approach of typical daily operations in support of the requirements

- **maintenance, preparations, flight operations**
- **data handling and delivery**
- **post flight operations**

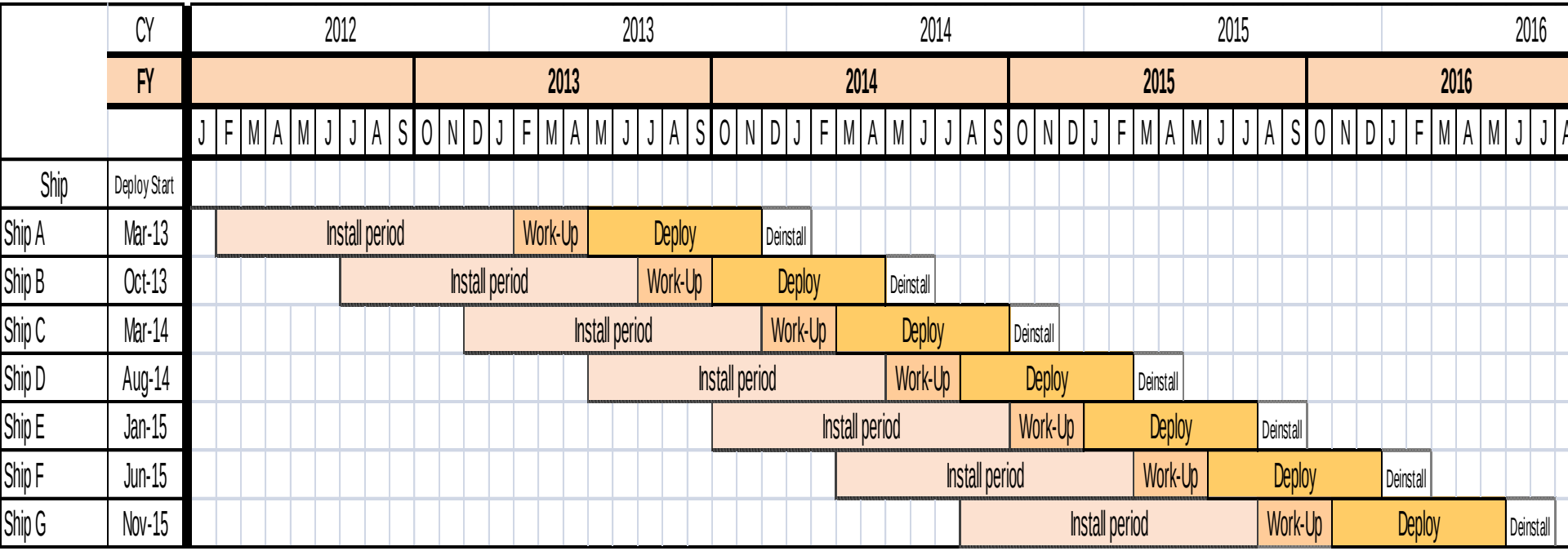
**** Draft RFP page 69***

Notional Sea-Based Single Ship Timeline

Example DDG Installation Timeline



Notional Sea-Based Multiple Ship Timeline



Section L
Task Order Capabilities – Land Based

2.2.2 Task Order Capabilities–Provide this information separately for each Task Order, putting the first Task Order, USMC LD-3, under Part A and the second Task Order, USAF DET 1&3, under Part B. Use A or B in the paragraph number as shown in the CRM in Part A of this Instruction. In responding to this section, assume all options are exercised, use of maximum monthly sensor levels of support, and use the timelines identified in the respective Task Order, Section F. Assume Task Order award as 1 February, 2012.

2.2.2.1 Task Order System Equipment Required
UAS quantity, initial loadout, spares, and 60 day packup.

2.2.2.2 Deployed Personnel - Describe the number of deployed personnel per site, their qualifications, and how they will be deployed and utilized to meet the requirements of the Task Order, including all options.
Include a description of personnel rotation over twelve months.
Provide completed Attachment (10) ISR Services Task Order Deployed Staffing Plan (Specify on the completed Attachment the name of the Task Order)

Revisions/Clarifications to 2.2.2 to further clarify requirements are forthcoming

** Draft RFP page 78*

Section L
Task Order Capabilities – Land Based

2.2.2.3 Scheduling
For evaluation purposes, assume the deployment schedule specified in Section F of Attachment (5) or Attachment (6) as appropriate. State whether or not the Offeror is ready to perform upon submittal of this proposal. If not, identify the time needed and the actions required.

2.2.2.3.1 Schedule/Lead times (Pre-deployment phase) Describe your schedule with necessary lead times

a. Hardware/equipment

ii. Describe the Offerors technical approach, POA&M, and plan to demonstrate that the required capabilities will be available at the time of Task Order execution.

b. Category 3 Flight Clearances and Authority to Operate

c. Training of contractor personnel in accordance with Attachment (2) Land-Based PBWS 4.1.1.4

d. Support of CONUS troop familiarization training operations, Task Order Two USMC Land-Based scenario only

**** Draft RFP page 78***

Section L
Task Order Capabilities – Land Based

2.2.2.3.1 Schedule/Lead times (Pre-deployment phase)

e. Pre-Deployment Logistical preparations, such as SOPs

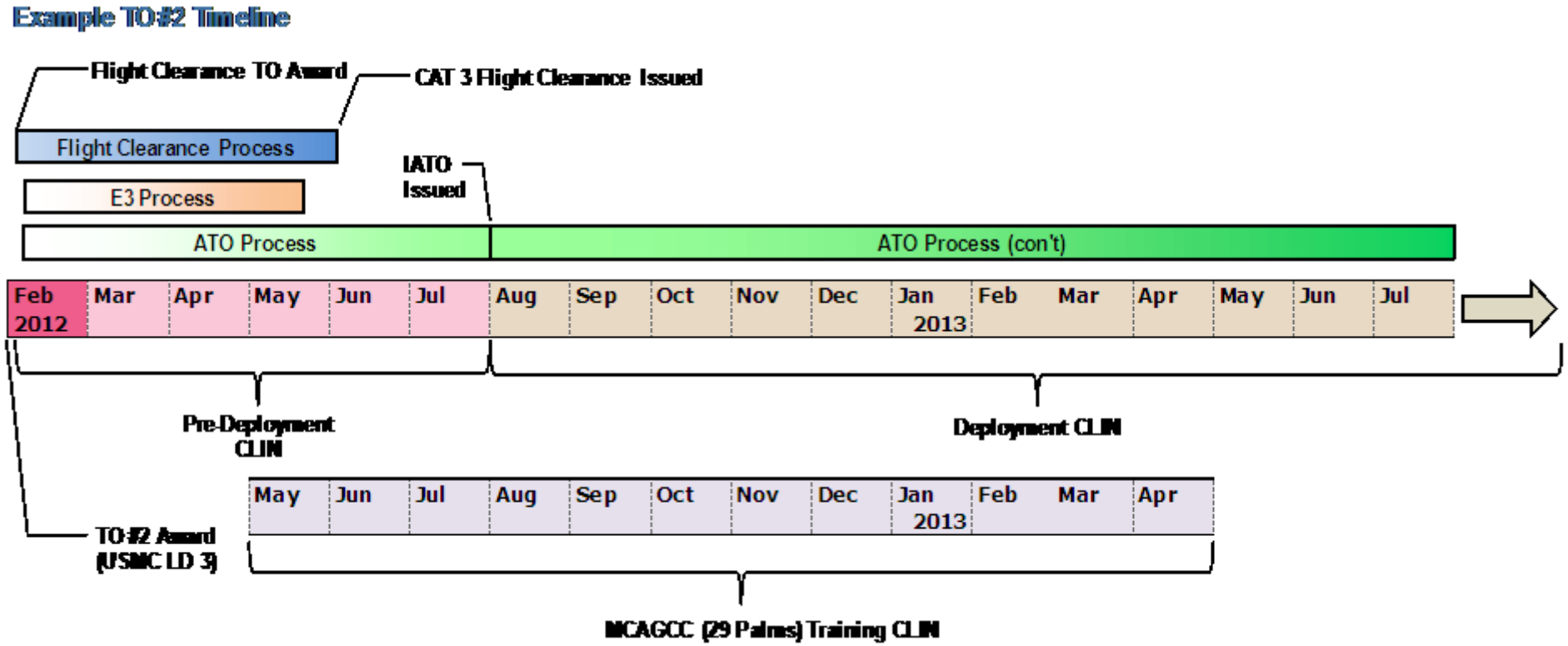
f. Obtaining proper deployment clearances (i.e. immunizations, passports, visas, etc)

2.2.2.3.2 Typical Deployment Daily Operations - Describe your approach of typical daily operations in support of the requirements

- **maintenance, preparations, flight operations**
- **data handling and delivery**
- **post flight operations**

**** Draft RFP pages 78 - 79***

Notional TO #2 Timeline



Section L – Technical

Small Business Utilization Strategy

Contract Specialist

Small Business Utilization Strategy

- L. 2.1.3/2.2.3 Small Business Utilization Strategy
  - (1) Strategies for using Small Businesses (SB) Concerns
    - » Describe approach to identifying, extent of participation, and complexity and variety of work for SBs
    - » Provide target dollars and experience in meeting proposed goals
    - » LB demonstrate SB Strategy is consistent with SB Subcontracting Plan
    - » LB provide copies of most recent Individual Subcontracting reports
    - » All Offerors
    - » Address in Technical Volume

***Draft RFP Pages 70 & 79**

Small Business Utilization Strategy

- (2) SB Subcontracting Plan
  - » Large Business Offerors
  - » Subcontracting Plan Template submit in Annex SB1
    - Applies to entire Contract
    - Include elements FAR 52.219-9(d)(5) - FAR 52.219-9(d)(11) or FAR 19.704(a)(5) – FAR 19.704(a)(11)
      - same information two different locations in FAR
    - Incorporated into contract at time of award
  - » Task Order Goals in Attachment (11)
    - Submit for each successful Task Order
    - Attachment (11) sample, do not submit with proposal, will be requested upon selection for a Task Order

- Need not duplicate for Land-based if submitted under Sea-based

***Draft RFP Pages 70 & 79**

Individual Subcontracting Plan Goals

ISR Services Task Order
Individual Subcontracting Plan Goals

Contract #: _____ Task Order #: _____

Required elements per FAR 19.704(a)(1) and (2) / FAR 52.219-9(d)(1) and (2):

	Task Order (base + options)		Contract Cumulative	
	Dollars	% of Total Subcontract Dollars	Dollars	% of Total Subcontract Dollars
Total Dollars to be Subcontracted				
Large Business				
Small Business (SB)				
Small Disadvantaged Business				
Women-Owned SB				
HUBZone SB				
Veteran-Owned SB				
Service-Disabled Veteran-Owned SB				
HBCU/MI*				

*Historically Black Colleges & Universities/Minority Institutions

**** Draft RFP Attachment (11)***

Section L – Price

Contract Specialist

Section L - Price

No price or pricing information shall be included in any volume, other than the Price Volume, including cover letters.

Section L - Price

L 5.1 General
Price Volume shall contain:

- 5.1.a All price information requested
  - Shall include a copy of Section B of each applicable Task Order for each requirement (Sea-Based and Land-Based)
  - Offeror must submit prices :
    for the Sea-Based Task Order to be eligible for award of the Sea-Based portion of this solicitation
    for BOTH Land-Based Task Orders to be eligible for award of the Land-Based portion of this solicitation
- 5.1.b All price information shall be contained in the price proposal
- 5.1.c. Price documentation requested is not considered cost or pricing data and shall not be certified in accordance with FAR 15.406-2.
- 5.1.d. Burden of proof for price credibility rests with the Offeror.

Section L - Price

L 5.2 Price Methodology and Evaluated Price

- **5.2.a Include explanation of all ground rules and assumptions that affect the price. Any apparent imbalances in the pricing, high or low proposed prices as compared to historical data, or any other anomalies should be fully explained. Topics to be addressed include, but are not limited to, investments, programmatic variables (e.g., inflation/escalation, location, make/buy decisions, amortization of hardware, phasing of hardware costs, recoupment of non-recurring costs, distribution of costs across CLINS, prime/subcontractor relationships, and business base concerns)**

- **5.2.b Demonstrate that the unit prices and the total evaluated price are reasonable and are commensurate with the work required by the solicitation and the technical and management approaches identified in the technical volume of the proposal.**

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Section L - Price

L 5.2 Price Methodology and Evaluated Price

- **5.2.e Complete the Excel spreadsheet Price Worksheet Attachments (14), (15), and (16)**

  The Evaluated Price is obtained by summing up the proposed Total Prices by CLIN within each Task Order. This is accomplished by completing the Excel spreadsheet Price Worksheet Attachments (14), (15), and (16) for the respective Task Order. The Offeror shall submit these completed attachments as a hard copy in Volume 5 of your proposal and digitally in the CD ROM containing the Price Volume. Within all Excel spreadsheets, the Offeror shall use formulas and functions and avoid using output type "value only" cells. If links are utilized, supply those referenced files. Spreadsheets shall not be protected.

Draft RFP Page 87

Attachment 14
Sea-Based Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
0001	ISR Sea-Based Pre-Deployment Support of CLIN 0002				
0001AA	Ship Check support	1	Lot		
0001AB	Kit A and B installation	1	Lot		
0001AC	Underway System and C2X Underway System Checks	1	Lot		
0002	Deployment DDG Arleigh Burke Class Destroyer up to 300 Hrs per month Sensor Data	7	Months		
0003	Post Deployment De-Install	1	Lot		
0010	Contract Data Requirements				NSP
Option 0012	Extra Month of Deployment CLIN Option 0002	1	Month		
Option 0102	Deployment DDG Arleigh Burke Class Destroyer Increased support 301 - 600 Hrs per month Sensor Data	7	Months		
Option 0112	Extra Month of Deployment CLIN Option 0102	1	Month		

Ship A

Attachment 14 (cont)
Sea-Based Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
Option 1001	ISR Pre-Deployment Support of CLIN 1002				
Option 1001AA	Ship Check support	1	Lot		
Option 1001AB	Kit A and B installation	1	Lot		
Option 1001AC	Underway System and C2X Underway System Checks	1	Lot		
Option 1002	Deployment DDG Arleigh Burke Class Destroyer up to 300 Hrs per month Sensor Data	7	Months		
Option 1003	Post Deployment De-Install	1	Lot		
Option 1010	Contract Data Requirements				NSP
Option 1012	Extra Month of Deployment CLIN Option 1002	1	Month		
Option 1102	Deployment DDG Arleigh Burke Class Destroyer Increased support 301 - 600 Hrs per month Sensor Data	7	Months		
Option 1112	Extra Month of Deployment CLIN Option 1102	1	Month		

Ship B

Attachment 14 (cont)
Sea-Based Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
Option 2001	ISR Pre-Deployment Support of CLIN 2002				
Option 2001AA	Ship Check support	1	Lot		
Option 2001AB	Kit A and B installation	1	Lot		
Option 2001AC	Underway System and C2X Underway System Checks	1	Lot		
Option 2002	Deployment DDG Arleigh Burke Class Destroyer up to 300 Hrs per month Sensor Data	7	Months		
Option 2003	Post Deployment De-Install	1	Lot		
Option 2010	Contract Data Requirements				NSP
Option 2012	Extra Month of Deployment CLIN Option 2002	1	Month		
Option 2102	Deployment DDG Arleigh Burke Class Destroyer Increased support 301 - 600 Hrs per month Sensor Data	7	Months		
Option 2112	Extra Month of Deployment CLIN Option 2102	1	Month		

Ship C

Attachment 14 (cont)
Sea-Based Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
Option 3001	ISR Pre-Deployment Support of CLIN 3002				
Option 3001AA	Ship Check support	1	Lot		
Option 3001AB	Kit A and B installation	1	Lot		
Option 3001AC	Underway System and C2X Underway System Checks	1	Lot		
Option 3002	Deployment DDG Arleigh Burke Class Destroyer 0 - 300 Hrs per month Sensor Data	7	Months		
Option 3003	Post Deployment De-Install	1	Lot		
Option 3010	Contract Data Requirements				NSP
Option 3012	Extra Month of Deployment CLIN Option 3002	1	Month		
Option 3102	Deployment DDG Arleigh Burke Class Destroyer Increased support 301 - 600 Hrs per month Sensor Data	7	Months		
Option 3112	Extra Month of Deployment CLIN Option 3102	1	Month		

Ship D

Attachment 14 (cont)
Sea-Based Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
Option 4001	ISR Pre-Deployment Support of CLIN 4002				
Option 4001AA	Ship Check support	1	Lot		
Option 4001AB	Kit A and B installation	1	Lot		
Option 4001AC	Underway System and C2X Underway System Checks	1	Lot		
Option 4002	Deployment DDG Arleigh Burke Class Destroyer 0 - 300 Hrs per month Sensor Data	7	Months		
Option 4003	Post Deployment De-Install	1	Lot		
Option 4010	Contract Data Requirements				NSP
Option 4012	Extra Month of Deployment CLIN Option 4002	1	Month		
Option 4102	Deployment DDG Arleigh Burke Class Destroyer Increased support 301 - 600 Hrs per month Sensor Data	7	Months		
Option 4112	Extra Month of Deployment CLIN Option 4102	1	Month		

Ship E

Attachment 14 (cont)
Sea-Based Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
Option 5001	ISR Pre-Deployment Support of CLIN 5002				
Option 5001AA	Ship Check support	1	Lot		
Option 5001AB	Kit A and B installation	1	Lot		
Option 5001AC	Underway System and C2X Underway System Checks	1	Lot		
Option 5002	Deployment DDG Arleigh Burke Class Destroyer 0 - 300 Hrs per month Sensor Data	7	Months		
Option 5003	Post Deployment De-Install	1	Lot		
Option 5010	Contract Data Requirements				NSP
Option 5012	Extra Month of Deployment CLIN Option 5002	1	Month		
Option 5102	Deployment DDG Arleigh Burke Class Destroyer Increased support 301 - 600 Hrs per month Sensor Data	7	Months		
Option 5112	Extra Month of Deployment CLIN Option 5102	1	Month		

Ship F

Attachment 14 (cont)
Sea-Based Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
Option 6001	ISR Pre-Deployment Support of CLIN 6002				
Option 6001AA	Ship Check support	1	Lot		
Option 6001AB	Kit A and B installation	1	Lot		
Option 6001AC	Underway System and C2X Underway System Checks	1	Lot		
Option 6002	Deployment DDG Arleigh Burke Class Destroyer 0 - 300 Hrs per month Sensor Data	7	Months		
Option 6003	Post Deployment De-Install	1	Lot		
Option 6010	Contract Data Requirements				NSP
Option 6012	Extra Month of Deployment CLIN Option 6002	1	Month		
Option 6102	Deployment DDG Arleigh Burke Class Destroyer Increased support 301 - 600 Hrs per month Sensor Data	7	Months		
Option 6112	Extra Month of Deployment CLIN Option 6102	1	Month		
			Total for this TO		$

Ship G

Attachment 15
Land-Based USMC Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
0005	ISR Land-Based Pre-Deployment Support of CLIN 0006	1	Lot		
0006	Land-Based Deployment USMC Land Base 3, Basic Period up to 3600 Hrs per month Sensor Data	12	Month		
0007	Land-Based Post Deployment De-Installation Services	1	Lot		
0008	Sensor Data for USMC System Land-Based Familiarization Training at MCAGCC Basic Period - NTE 1500 Hrs of Sensor Data per year	12	Month		
0010	Contract Data Requirements				NSP
Option 0106	Deployment USMC Land-Based-3, Basic Period - Increased Support 3601 – 4200 Hrs Sensor Data	12	Month		
Option 0206	Land-Based Deployment USMC Land Base 3, Basic Period - Increased Support 4201 –5400 Hrs Sensor Data	12	Month		
Option 1006	Land-Based Deployment USMC Land Base 3, Option Period 1 up to 3600 Hrs Sensor Data	12	Month		
Option 1008	Sensor Data for USMC System Familiarization Training at MCAGCC Option Period 1 - NTE 1500 Hrs of Sensor Data per year	12	Month		
Option 1106	Deployment USMC Land-Based-3, Option Period 1 - Increased support 3601 – 4200 Hrs Sensor Data	12	Month		
Option 1206	Land-Based Deployment USMC Land Base 3, Option Period 1 - Increased support 4201 –5400 Hrs Sensor Data	12	Month		

Attachment 15 (cont)
Land-Based USMC Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
Option 2006	Land-Based Deployment USMC Land Base 3, Option Period 2 up to 3600 Hrs per month Sensor Data	6	Month		
Option 2008	Sensor Data for USMC System Familiarization Training at MCAGCC Option Period 2 - NTE 800 Hrs of Sensor Data	6	Month		
Option 2106	Deployment USMC Land Base 3, Option Period 2 - Increased support 3601 – 4200 Hrs Sensor Data	6	Month		
Option 2206	Deployment USMC Land Base 3, Option Period 2 - Increased support 4201 – 5400 Hrs Sensor Data	6	Month		
			Total for this TO		$

Attachment 16
Land-Based USAF Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
0005	ISR Pre-Deployment Support USAF Detachment 1	1	Lot		
0006	Deployment USAF Detachment 1 Basic Period Support up to 300 Hours of ISR Sensor Data per month	12	Month		
0007	ISR Post-Deployment De-Installation Support USAF Detachment 1	1	Lot		
0010	Contract Data requirements				NSP
Option 0016	Deployment USAF Detachment 1 Basic Period Increased Support 301- 600 Hours of ISR Sensor Data per month	12	Month		
0105	ISR Pre-Deployment Support USAF Detachment 3	1	Lot		
0106	Deployment USAF Detachment 3 Basic Period Support up to 300 Hours of ISR Sensor Data	12	Month		
0107	ISR Post-Deployment De-Installation USAF Detachment 3	1	Lot		
0110	Contract Data requirements				
Option 0116	Deployment USAF Detachment 3 Basic Period Increased Support 301- 600 Hours of ISR Sensor Data	12	Month		

Attachment 16 (cont)
Land-Based USAF Spreadsheet

ITEM	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
Option 1006	Deployment USAF Detachment 1 Option Period 1 Support up to 300 Hours of ISR Sensor Data	12	Month		
Option 1016	Deployment USAF Detachment 1 Option Period 1 Increased Support 301-600 Hours of ISR Sensor Data	12	Month		
Option 1106	Deployment USAF Detachment 3 Option Period 1 Support up to 300 Hours of ISR Sensor Data	12	Month		
Option 1116	Deployment USAF Detachment 3 Option Period 1; Increased Support 301- 600 Hours of ISR Sensor Data	12	Month		
Option 2006	Deployment USAF Detachment 1 Option Period 1 Support 0-300 Hours of ISR Sensor Data	6	Month		
Option 2016	Deployment USAF Detachment 1 Option Period 1 Increased Support 301-600 Hours of ISR Sensor Data	6	Month		
Option 2106	Deployment USAF Detachment 3 Option Period 1 Support up to 300 Hours of ISR Sensor Data	6	Month		
Option 2116	Deployment USAF Detachment 3 Option Period 1; Increased Support 301- 600 Hours of ISR Sensor Data	6	Month		
			Total for this TO		$

Typical Price Proposal Shortfalls

- Math and/or spreadsheet formulas are incorrect
- Not explaining pricing approach
- Excessive ground rules or assumptions
- Inconsistency between the technical proposal and the price proposal

Airworthiness

Airworthiness Chief Engineer

AIR-4.0P

Airworthiness

Process and Procedures Overview

ISR Services Pre-Solicitation Conference

12 Apr 2011

https://airworthiness.navair.navy.mil

NAVAIR

Airworthiness Office Mission

The Airworthiness Office (AIR-4.0P) is responsible for overseeing the execution of a sound airworthiness process (from planning to execution) and issuing all flight clearance products for all manned and unmanned aircraft on behalf of the Commander, Naval Air Systems Command and under the Direction of the CNO.

Airworthiness Office
Primary Focus

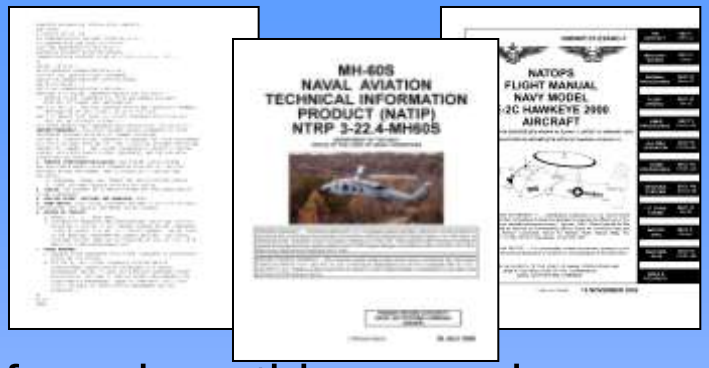
Who we support:

- USN/USMC Aircraft and Aircraft Systems
- International Customers (15+)
- Externally Directed Teams (e.g. US Coast Guard)
- Non USN/USMC A/C if directed by AIR-00

How we support them:

- **AIRWORTHINESS**
  - Task appropriate NAVAIR Competencies for engineering reviews to assess level of airworthiness, ensure appropriate mitigation
- **SAFETY OF FLIGHT (SOF)**
  - Address safety issues and mitigate, as appropriate
- **RISK**
  - Identify risk, facilitate mitigation process and/or risk acceptance, as appropriate
- **ISSUANCE OF FLIGHT CLEARANCE PRODUCTS**

What is a Flight Clearance?

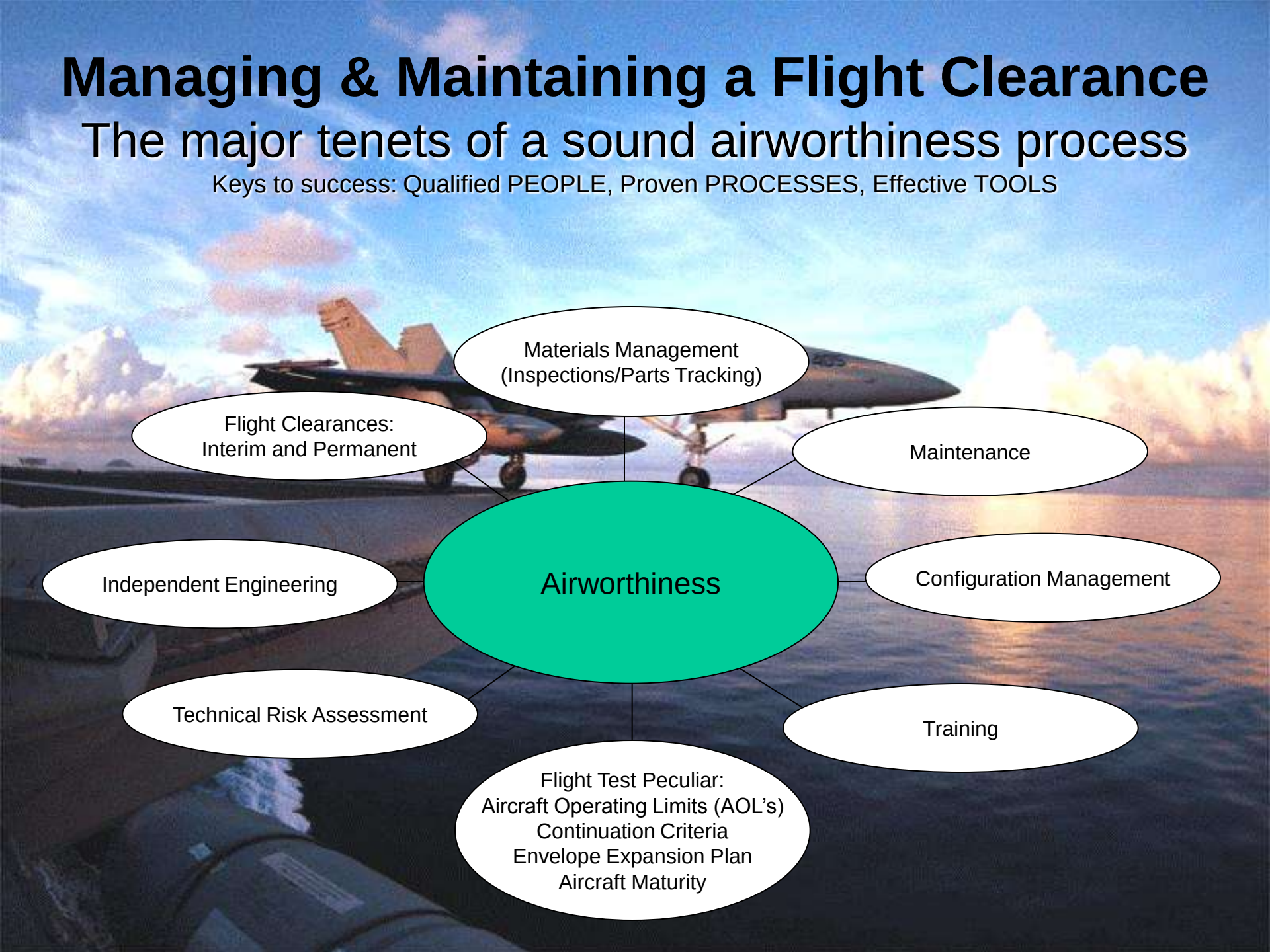


- A formal document, issued after completion of an airworthiness review, for DoN public use and state aircraft that provides:
  - ***Assurance of airworthiness and safety of flight***
    commensurate with the type of aircraft flown and the intended mission and,
  - ***Ensures risk has been identified and accepted***
    at the appropriate level within acceptable bounds for the intended mission
- Flight clearances provide flight/operating limitations and/or restrictions for specific configurations and store loadings.
  - Does not provide every applicable limit or restriction
  - Does not replace good headwork or common sense by the pilot/aircrew!
- **Two Types** of Flight Clearances
  - Permanent (PFC) usually issued by Replacement Pages or Revisions in the form of:
    - **NAVAL AIR TRAINING AND OPERATING PROCEDURES STANDARDIZATION (NATOPS)**
    - **NAVAL AVIATION TECHNICAL INFORMATION PRODUCT (NATIP)**
  - Temporary issued by Naval Message or Letter in the form of an
    - **Interim Flight Clearance (IFC)**
- **Process Governed by NAVAIRINST 13034.1D**

Managing & Maintaining a Flight Clearance

The major tenets of a sound airworthiness process

Keys to success: Qualified PEOPLE, Proven PROCESSES, Effective TOOLS



Background

Airworthiness

- The property of an air system to safely attain, sustain and terminate (‘complete’ in case of UAS) flight in accordance with approved usage limits
  - All manned aircraft must be airworthy
  - UAS may have a lower level of inherent airworthiness and a higher probability of loss than manned aircraft
  - UAS categorized into 3 major categories
    - Appropriate level of airworthiness criteria, engineering standards and data requirements

Background

Safety of Flight (SOF)

- The property of an air system configuration to safely attain, sustain and terminate ('complete' in case of UAS) flight within prescribed and accepted limits for injury/death to personnel and damage to equipment, property and/or environment
  - Intent of assessing SOF is to show that the level of risk (hazard to the system, personnel, property, equipment and environment) has been appropriately identified by the TAEs, and accepted by the appropriate authority
  - All DON manned and unmanned aircraft systems must be safe for flight within acceptable levels of risk defined in NAVAIRINST 5000.21B and MIL-STD-882D
  - Operating limitations/restrictions may be placed on UAS operations to ensure an overall acceptable level of flight safety

Risk Assessment

When risk is determined to be beyond "normal" for the intended mission

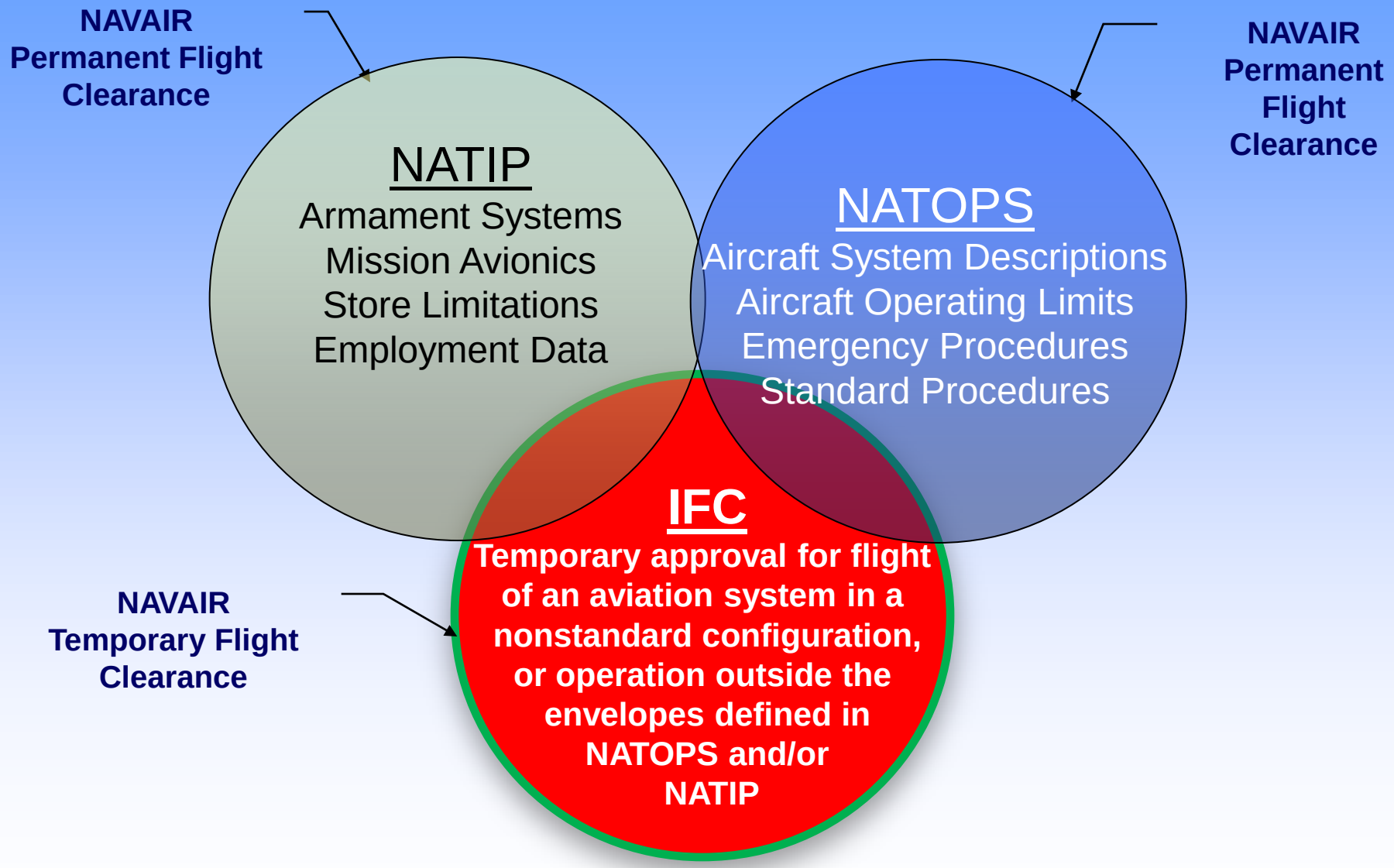
(flight test, air show, fleet use, etc.)

a Hazard Risk Analysis (HRA) and subsequent residual risk acceptance may be required.

A Hazard Risk Index (HRI) could be included in the flight clearance under the heading of a:

- **WARNING**
- **CAUTION**
- **NOTE**

3 Flight Clearance Products



Interim Flight Clearances

- Provides temporary flight authorizations for aircraft systems.
- Valid until the specific expiration date or other conditions in the IFC are met
- Commonly used in the RDT&E community, but can also be used on a temporary basis for Fleet operations
- Structured, text based product- no figures, charts, illustration
- Delineates system configuration, limits, warnings, caution, or notes that are not otherwise addressed in standard documents.

NAVAIR UAS Flight Clearance Policy
(NAVAIRINST 13034.1D)

- UAS categorized into 3 major categories
  - Accommodates spectrum of UAS size, weight, complexity, mission, autonomy, cost and inherent level of airworthiness
  - UAS may have a lower level of inherent airworthiness and a higher probability of loss than manned aircraft (Para 6.a.2.b)
- Category determined primarily by intended usage, airworthiness criteria, engineering standards, substantiating data
  - Airworthiness based on compliance with tailored criteria & standards chosen by TAEs rather than verification of system level mishap rate
  - Target System Level Mishap Rate
- Ensure overall acceptable level of flight safety
  - Mitigate risk to people and property on the ground, and/or uncontrolled flight outside of pre-planned or contingency profiles

UAS Flight Clearance Categories

UAS Flight Clearance Category	Intended Airspace Usage	Airworthiness Standards & Data Requirements	Risk Acceptance/ Mitigation	Target System Level Mishap Rate*	MTOW** (lbs)
Category 1 (Standard)	**All Classes of Airspace** (including outside of Restricted Areas and Combat Zones) (e.g., full NAS compliance, sense & avoid)	•Similar to manned A/C	•Risk Acceptance at Appropriate Level (same as manned A/C)	≤ 1 UA Loss in 100,000 flt hrs	>1320
Category 2 (Restricted)	**Operations Over Areas of Low Population Density, Restricted/ Warning Areas, Maritime Environment, Combat Zones**	•Tailored Airworthiness criteria, engineering standards and data (Less stringent than Cat 1)	•Risk Acceptance at Appropriate Level •Operating limitations/ restrictions to maintain acceptable levels of safety to persons/property on ground	≤ 1 UAV in 10,000 flt hrs	55 to 1320
Category 3 (Developmental)	**Sparsely Populated Areas, Restricted/Warning Areas, Maritime Environment and/or Combat Zones/Specific Ranges** (e.g., specific ranges/ airspace)	•Not designed to accepted engineering standards and/or insufficient data to verify compliance •Data Requirements correlate to intended usage •Risk Assessment questionnaire (e.g., RCC 323-99) •Safety Case	•Owner/sponsor acknowledgment of higher probability of loss •Risk Acceptance at Appropriate Level •Stringent operating limitations/restrictions to maintain acceptable levels of safety to persons/property on ground/environment	> 1 UAV in 10,000 Flt hrs or Unknown	Up to 55

Notes:

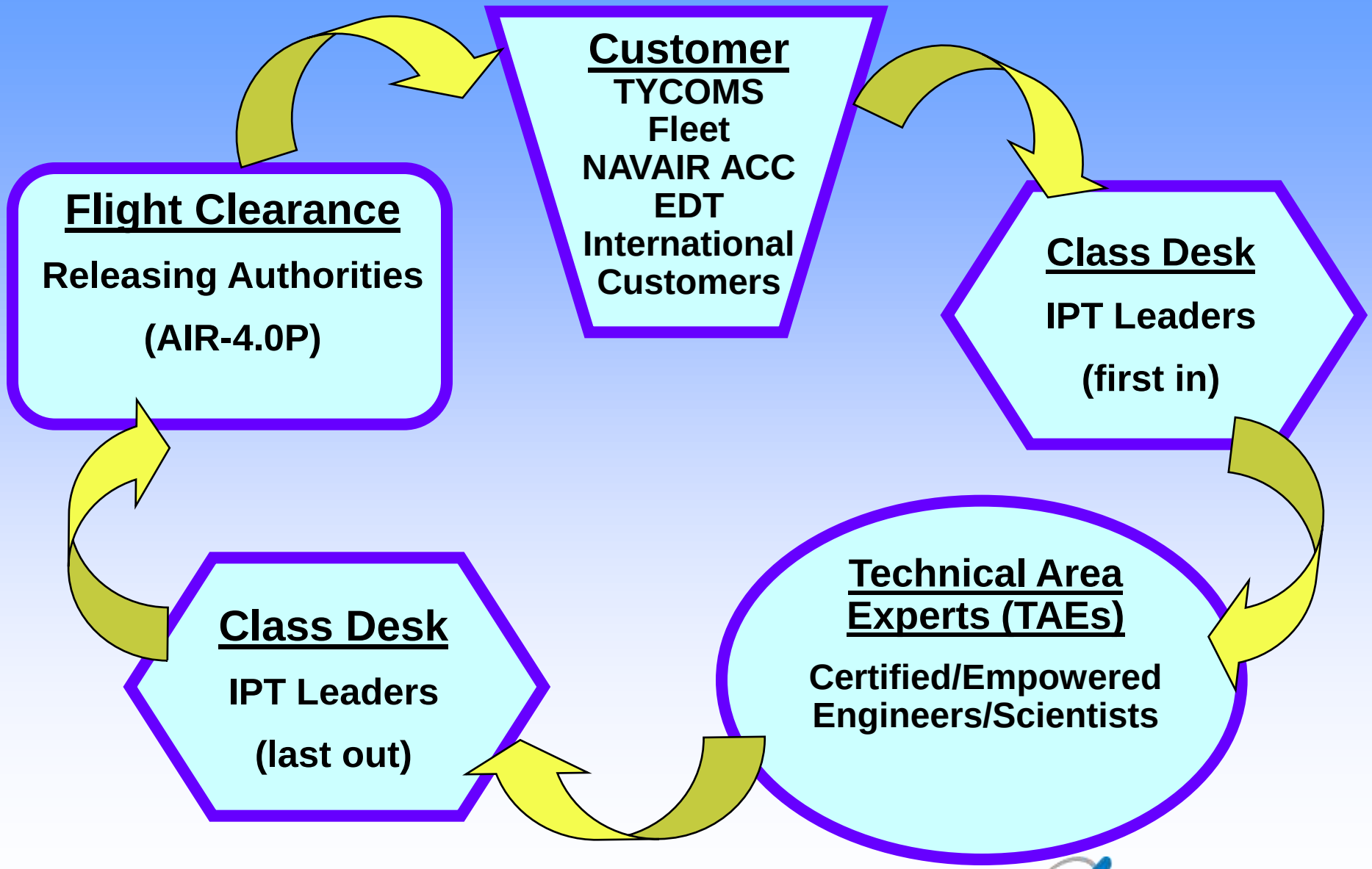
* Airworthiness based on compliance with criteria & standards chosen by TAEs rather than verification of system level mishap rate

** May be issued to UAs of any weight

13034.1D UAS Flight Clearances Category 3 Highlights

UAS Flight Clearance Category	Intended Airspace Usage	Airworthiness Standards & Data Requirements	Risk Acceptance/ Mitigation
Category 3 (Developmental)	•**Sparsely Populated Areas** •**Restricted Areas** •**Warning Areas** •**Maritime Environment** •**Combat Zones** •**Specific Ranges**	•Not designed to accepted engineering standards and/or insufficient data to verify compliance •Data Requirements correlate to intended usage •**Risk Assessment questionnaire (e.g., RCC 323-99)** •Safety Case	•**Owner/sponsor acknowledgment of higher probability of loss** •Risk Acceptance at Appropriate Level •Stringent operating limitations/restrictions to maintain acceptable levels of safety to persons/property on ground/environment

Airworthiness Players



General Airworthiness Process

Class Desk, 4.0P, TAEs, and contractor (Experts on the system)

Planning Meeting*!!

*Resulting in EDRAP!

Generate and Submit Request

Determine Scope of Review

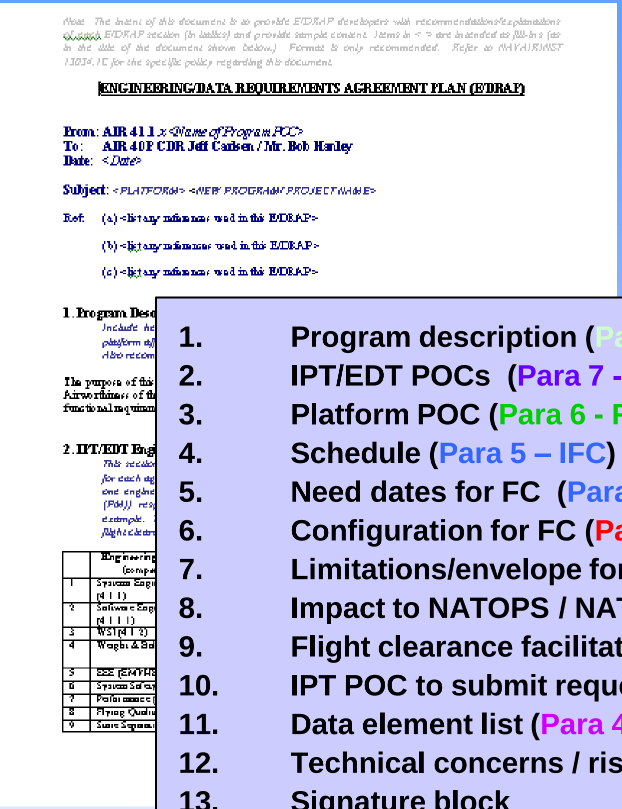
Execute Review

Finalize Flight Clearance

Release Flight Clearance

Planning Meetings

- **<u>Run by Program but facilitated by AIR-4.0P</u>; Attended by Class Desk, TAEs, Contractor, Test Team, and NAT. An abbreviated meeting via phone calls or emails can be used to communicate data requirements or raise concerns.**
- **Exchange of Data and Information (email, CDs, share drives, mailed reports, etc)**
- **Determine Engineering Data Requirements**
- **Establish Responsibilities**
- **Prepare an Engineering Data Requirements Agreement Plan (EDRAP)**


Note: The intent of this document is to provide EDRAP developers with recommendations/explanations of each EDRAP section (in italics) and provide sample content. Items in < > are intended as fill-ins (as in the title of the document shown below.) Format is only recommended. Refer to NAVAIRINST 13034.1C for the specific policy regarding this document.

ENGINEERING/DATA REQUIREMENTS AGREEMENT PLAN (EDRAP)

From: AIR 4.1.1.x <Name of Program POC>
To: AIR 4.0P CDR Jeff Carlsen / Mr. Bob Hanley
Date: <Date>

Subject: <PLATFORM> <NEW PROGRAM/PROJECT NAME>

Ref: (a) <list any references used in this EDRAP>
(b) <list any references used in this EDRAP>
(c) <list any references used in this EDRAP>

1. Program Desc

2. IPT/EDT Eng

1. Program description (Para 1 - IFC)
2. IPT/EDT POCs (Para 7 - Request)
3. Platform POC (Para 6 - Request)
4. Schedule (Para 5 – IFC)
5. Need dates for FC (Para 5 - IFC)
6. Configuration for FC (Para 2 - IFC)
7. Limitations/envelope for FC (Para 3 - IFC)
8. Impact to NATOPS / NATIP (Para 5 - IFC)
9. Flight clearance facilitator (Para 6 - IFC)
10. IPT POC to submit request (Para 6 - IFC)
11. Data element list (Para 4 – Request)
12. Technical concerns / risk (Para 4 - IFC)
13. Signature block
14. Date of issue

NAVAIR

Thermal

System Safety

Materials

Avionics

Core Avionics

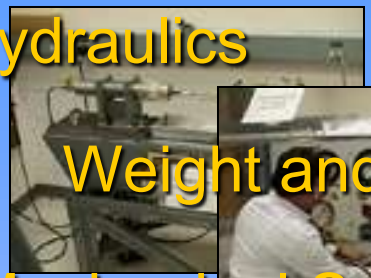
Software

Store Integration

Store Separation

Class Desk

Hydraulics



Weight and Balance

Mechanical Systems

Fuel Containment

Aviation/Ship Integration

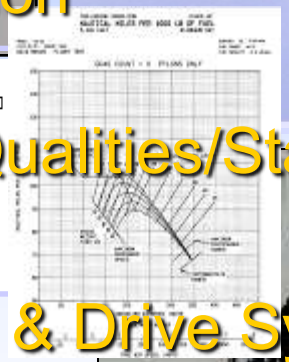
The Technical Review

E^3

Target Controls

Loads and Dynamics

Landing Gear



Flying Qualities/Stab & Cntl

Performance

APU & Drive Systems

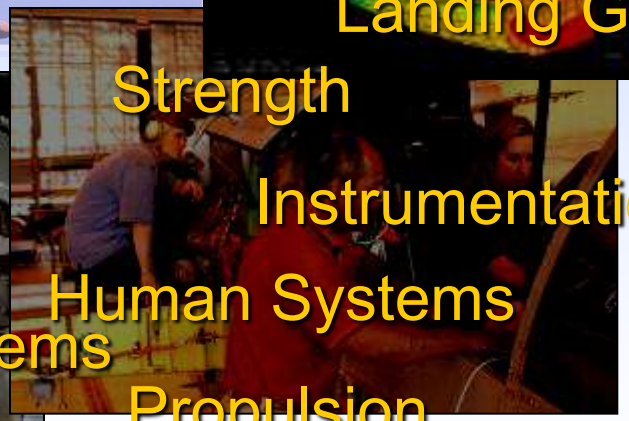
Flight Controls

Safe Escape

Wiring

Radar & Antenna Systems

Electrical Power



Strength

Instrumentation

Human Systems

Propulsion

NAVAIR

What Does the Request Need to Say?

THE SEVEN PARAGRAPH REQUEST FORMAT

03 DEC 06
FROM: CLASS DESK
TO: AIR-4.0P
INFO: WHOMEVER YOU WANT TO GET INFO'D ON IFC
SUBJ: REQUEST IFC FOR …
REF:

REMARKS/ 1. REQUEST FLIGHT CLEARANCE FOR: (What Do You Want – but this is NOT a configuration paragraph)

2. CONFIGURATION / LOADING: What is different/new? (External Stores / Pods / Etc) Configuration goes here – need baseline referenced.

Includes Aircraft
GCS
Launcher/Arrester
Software

3. LIMITS DESIRED: (NATOPS/NATIP/OTHER)

4. **DATA:** (The More Substantiation The Better--will Engineering Requirements Be Met?)

Operating Envelope
Weight & Balance
Day/Night ops
GCS-GCS Hand-off
Wind limits
Etc..

List of data artifacts avail for review (data element list)

5. TIME PERIOD: (When Do You Need Clearance – give a date! and for How Long)

6. POINTS OF CONTACT: (At TYCOM / NAWCAD/WD Squadron / NAVAIR / Etc)

7. OTHER REMARKS: (Suggested chops, planning meetings held / amplifying Info / why clearance needed, etc)

IFC Request & Chop

- Draft Flight Clearance must accompany IFC request
- Risk assessment such as RCC-323-99 range safety questionnaire must accompany request (Cat 3 UAS)
- Data artifacts identified by TAEs in planning meeting to substantiate airworthiness must be available for TAE review
- Documents referenced in the IFC to execute flight operations must be available for TAE review, such as:
  - Operators Manual(s)/procedures and Checklists, Maintenance Manual(s)/procedures and Checklists, document(s) defining Operating envelope, system configuration, etc.

NAVAIR

Flight Clearance / Engineering Chop List

Tracking No. | DTO | Date of Request

Aircraft Program | TYCOM | Ser #

Specific T/M/S | Date Received

Subject

Airworthiness Officer | Facilitator

Required Engineering Chops — *System Concurrence required before release*

INTERIM FLIGHT CLEARANCE: What does it look like?

THE SEVEN PARAGRAPH FORMAT

292000Z NOV 2005
FM COMNAVAIRSYSCOM PATUXENT RIVER MD//4.0P//
TO CONTROLLING CUSTODIAN AND/OR APPROPRIATE TYCOM
INFO WHOMEVER YOU WANT TO GET INFO'D ON IFC
SUBJ: REQUEST IFC FOR …
REF:

List of References such as Operating & Maint procedures, checklists, configuration documentation, etc.

REMARKS/ 1. INTERIM FLIGHT CLEARANCE FOR: (Aircraft & subject)

2. CONFIGURATION / LOADING: (Describe what you are flying – can reference other documents like NATOPS or drawings; includes External Stores / Pods / Etc)

3. LIMITS: (NATOPS/NATIP/OTHER)

4. WARNINGS, CAUTIONS, AND NOTES: (Related to the new config/limits; categories same as NATOPS)

5. TIME PERIOD: (Provides an expiration if appropriate)

6. POINTS OF CONTACT: (At NAVAIR – Class Desk, Facilitator & AIR-4.0P)

7. OTHER REMARKS: (Other Info)

UAS Airworthiness Areas of Emphasis

- **Airworthiness considerations of increased importance for UAS :**
  - **Shipboard launch & recovery methods & envelopes**
  - **GPS receiver accuracy and reliability**
  - **Lost Link/Lost Comm**
  - **EMI/EMC/EMV (e.g. shipboard electromagnetic environment)**
  - **Remote control/ground station (e.g., software safety, human factors, etc.)**
  - **Battery Cert**
- **Considerations that are related to UAS airworthiness but exceed the scope of airworthiness:**
  - **Spectrum allocation/coordination**
  - **UAS operator and maintainer certification (a Training/Logistics issue)**
  - **Ability of the UAS to deconflict with other air traffic (an ATC issue)**

The Big "Takeaways" Regarding UAS Flight Clearances

- UAS vary widely in weight, complexity, usage spectrum, autonomy, and cost
- 3 Categories w/ dependencies on operational area, level of system reliability/airworthiness, owner/sponsor risk tolerance to loss of UA
- Class Desk identifies which Category best fits project needs
- Engineering data requirements are tailored based on system complexity, risk to third parties/property, usage spectrum, verification data, etc.

https://airworthiness.navair.navy.mil

Key Items to Remember!

- Know the major tenets of airworthiness
  - Per the NAVAIR Instruction 13034.1D
- Know the definition of Airworthiness and Safety of Flight and how to apply them
- Understand the Category 3 Flight Clearance process and the associated limitations
- Attend Planning Meetings
  - Planning ahead makes for faster turnaround times!

Information Assurance

An Offeror's Perspective

Head, Information Systems Services

Agenda

- IA Overview
- IA Policies
- Cross Domain Solutions
- Certification and Accreditation (C&A)
- Additional Requirements

Information Assurance Overview

Information Assurance is the practice of managing information related risks. The core principles of IA include:

- **Confidentiality** – Preventing the disclosure of information to unauthorized individuals or systems.
- **Integrity** – Preventing data from being modified without authorization.
- **Availability** – Ensuring information is available when needed in a required, timely fashion. Preventing Denial-of-Service (DoS) attacks, service disruptions due to power failures, service upgrades and hardware failures.

IA Policies and Procedural Requirements

- The Clinger-Cohen Act (CCA) of 1996
  - Information technology treated as a “capital investment”
  - Required for all programs that contain Information Technology (IT)
  - Requires the program office to submit a package of acquisition documents reflecting that it has appropriately planned for and implemented IT into their program
- The Defense Information Technology Portfolio Repository – Department of Navy (DITPR-DON)
  - After initial registration, annual updates are required to ensure currency of the information
- The Department of Navy Applications and Database Management System (DADMS)
  - After initial registration, annual updates for each software application

CCA Not Applicable to this Service, but would be useful if already exists

Cross Domain Solution (CDS)

- Any time data flows from one domain (classification level) to another, an approved CDS or controlled interface must be in place
  - Includes data flow from UAS to Navy/Marine Corps Information Systems
  - CDS provides one-way “check valve”

- Each approved CDS requires three approvals:
  - Device certification by NSA
  - Technical certification of the solution in its given environment by the CDTAB
  - Overall system certification by the Defense Security Accreditation Working Group (DSAWG)

- Program office will provide the CDS to the offeror per PBWS

Certification and Accreditation (C&A)

- Certification and accreditation is the process a system goes through in order validate it has the appropriate IA and security in place based on the system being evaluated.
  - Certification focuses on the technical elements of the system to make sure it has a solid IA architecture that is effective and sufficient
  - Accreditation is a holistic view of the system and its supporting functions to ensure that there is the appropriate planning, resources, and expertise to ensure that the system is being developed and deployed with IA as a integral part of all program activities.
- Three important policies define the C&A process across DoD, with specific guidance and implementation defined by the services themselves.
  - DoD Instruction 8510.01 – Defense Information Assurance Certification and Accreditation Process (DIACAP)
  - DoD Directive 8500.1 – Information Assurance
  - DoD Instruction 8500.2 – Information Assurance Implementation

C&A is a DoD directed process

Elements of IA evaluated in C&A

- Back-Ups
- Encryption for mobile devices
- Cross Domain Solution architectures
- Device Hardening
- Public Key Infrastructure Requirements
- Physical Security
- System Development Documentation

C&A process designed to evaluate system risks due to threats and vulnerabilities

Build and Test Phase of C&A

- **System** – Includes UAS, GCS and CDS
- **Hardening** - the process of applying the DISA Gold Disk to systems on the network, as well as running a security scan of the system/network/device such as eEye Retina to identify and remediate security vulnerabilities. Once a system is hardened, it is scanned by both the Gold Disk and Retina tools, which generate reports used by the DAA to make accreditation decisions.
- In addition to the hardening and scanning process, two tests are performed on the system.
  - **Certification Test and Evaluation (CT&E)** - tests the technical elements of the system, including design requirements, device configuration, etc.
  - **Security Test and Evaluation (ST&E)** - a full scope of tests which includes all of the CT&E controls, as well as physical security, documentation requirements, and other elements of a program.

Build and Test Phase of C&A (con't)

The ST&E will include the following areas as part of its test:

- Training
- Disaster, Contingency and Continuity Plans
- Data Back-Up Strategies
- Physical Security
- Configuration Management
- Technical Architecture
- Maintenance Support Plan
- IA Reviews
- Hardware Certifications
- IA Budgeting
- Memoranda of Agreement
- IA Roles and Responsibilities
- Boundary Defense
- Auditing
- COMSEC
- Cross Domain Solutions
- Access Control
- Wireless Capabilities
- Environmental Controls
- Approximately 170 controls in all (depends on Mission Assurance Category and Security Classification Level)

Build and Test Phase of C&A (con't)

- Document, Document, Document…..In order to pass an IA control, it has to be documented. This includes all plans, appointments to IA roles, memorandums of agreement, test results, system designs, etc.
- The following is short list of documents required for most systems (it is not all-inclusive):
  - Systems Identification Profile (SIP)
  - DIACAP Implementation Plan (DIP)
  - DIACAP Scorecard
  - POA&M
  - Hardware/Software List
  - Network Diagram
  - Contingency Plan
  - Sustainment and Support Plan
  - IAO and System Administrator Appointment Letters
  - Configuration Management Plans
  - IAVM Plan and more……

C&A Process – ATO Decision

- Once the DIACAP Package is developed, it is submitted through the appropriate Echelon II for review. Any comments or deficiencies need to be addressed prior to moving forward.

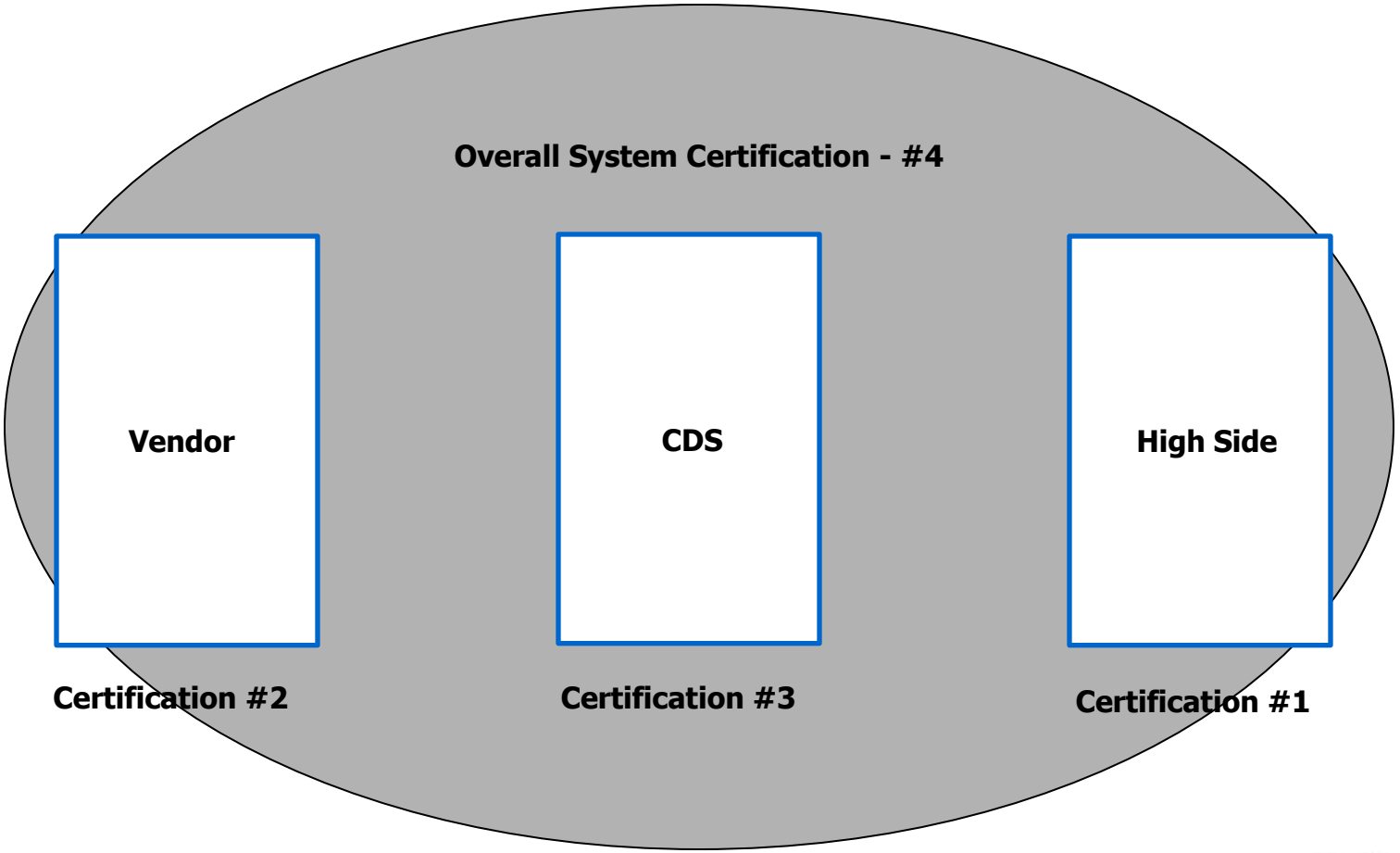
- Once approved, the DIACAP Package is sent to the certification agent for review. They review the technical elements of the system and the documentation and provide a recommendation to NNWC regarding the technical risk associated with the system.

- The final approval is NNWC. They review all program documentation and use the certification agent recommendation letter for guidance. The outcomes are as follows:
  - Denied Authority to Operate
  - Interim Authority to Test
  - Interim Authority to Operate
  - Authority to Operate

- Any system with a HIGH vulnerability from the ST&E or security scans will not be granted an ATO.

- Systems can only receive two IATOs (180 days each) before being issued a DATO.

Certification Process



C&A Process - Operations and Maintenance

- Achieving a 3-year ATO is no longer a free pass for 3 years
  - Systems must be tested and the results documented every year
- Contingency and Incident Response plans must be tested every year
- All new hardware and software needs to be hardened and scanned prior to inclusion in the system
- Any major system upgraded or modifications requires a re-submission of the DIACAP package for an accreditation decision
- Security logs and audit reports need to be reviewed regularly to identity any security concerns
- The IAVM plan needs to be followed and response to any Computer Tasking Orders (CTO) need to be implemented and reported on
- Training and certifications need to be maintained

IA is a continuous and ongoing effort for any system

Bottom Line

- IA process is a potentially long and difficult one.
  - Recent policy changes have increased the depth of focus and thus the timeframe for certification

- We (PMA-263 / 4.5.10) are here as partners with Industry to streamline a difficult process
  - Early engagement is critical
  - PMA-263 / 4.5.10 will meet with TO Awardees for an in-depth planning session immediately after TO award(s)